



BODY AND WILL

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BEING

AN ESSAY CONCERNING WILL

IN ITS

METAPHYSICAL, PHYSIOLOGICAL & PATHOLOGICAL ASPECTS

REFERENCE

BY

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REFERENCE

PREFACE.

THIS ESSAY has had its beginnings in lectures and addresses which I have given on different occasions during the last ten years; the themes of which were Conscience and Organisation, the Physical Basis of Will, Lessons of Materialism, and the like. The design, entertained vaguely for some time, of collecting them into a book was abandoned, because it was evident that the treatment of the subject in that loose way would not be sufficiently concise and methodical, or indeed adequate. Thereupon this essay on Will in its metaphysical, physiological, and pathological relations was undertaken, in order to have unity of subject and to treat it systematically and with more pretence to completeness. The freedom of a spiritual will being the stronghold of a metaphysical psychology, there can be no accusation of evading difficulties when that is selected as test-subject of the value of the doctrines arrived at by the positive method of observation and induction. If the method fails there, its fundamental incompetence must be frankly admitted.

I am not ignorant that those who are adepts in the schools of high mental philosophy may think the essay to be a weak intrusion into their high domains; for I must confess to being unable to use their language with a satisfactory sense of having clear and definite ideas beneath its terms, to having no proper faith in their methods, and to having failed to gather from their works fruits of any practical use. From

their standpoint they may be satisfied to dismiss it as of no philosophical concern to them. Its justification from my standpoint is, that I have been engaged all my life in dealing with mind in its concrete human embodiments, and that in order to find out why individuals feel, think, and do as they do, how they may be actuated to feel, think, and do differently, and in what way best to deal with them so as to do one's duty to oneself and to them, I have had no choice but to leave the barren heights of speculation for the plains on which men live and move and have their being. It is not enough to think and talk about abstract minds and their qualities when you have to do with concrete minds that must be observed, studied, and managed.

The essay will not be in vain if it serve to bring home to mental philosophers the necessity of taking serious account of a class of facts and thoughts which, though they are not philosophy, may claim not to be ignored by philosophy. After all, it will not be labour lost, since they may well spare a little time from their work of saying over and over again, in different and not always clearer language, what was said more than two thousand years ago, and of diligently endeavouring to do now by the same method what men of not less philosophical aptitudes and capacities failed to do then.

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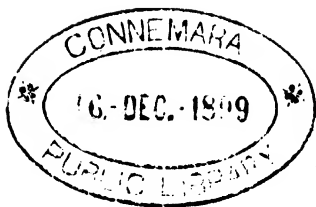
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CONCERNING WILL.

PART I.

WILL IN ITS METAPHYSICAL ASPECT.

SECTION I.

THE THEORY OF FREEWILL AND ITS DIFFICULTIES.

IN certain rural districts it is the custom to speak of a child that has been born out of wedlock as a 'chance-child,' and of its mother as having had a 'misfortune;' not that any one really believes the living event to have come by chance, in violation of ordinary law, without conceivable cause, but it is an indirect way of intimating that it ought not rightly to have come, and that it is not certain who has been concerned in the begetting of it. One may compare this way of speaking of a natural event to that used by many of the advocates of the freedom of the will, who are accustomed to speak of an act of will as if it were a chance-event; thereby meaning, or persuading themselves they mean, not that some part of the will, its inmost essence, is outside the reach of present explanation, but that it is actually outside the order of natural causation: that will is essentially a self-procreating, self-sustaining spiritual entity, which owns no natural cause, obeys not law, and has no sort of affinity with matter. An immaterial entity in a material world, the events of which it largely determines—such the signal and singular position claimed for it.

For the most part those who uphold a power of this kind, self-determined and self-determining, free not merely to *act* but to *be*, do not go so far as to say that motives are not at work continually in the mind, or that the will takes no account of them; what they do earnestly protest is, that in the motivation of will there is not the uniform, inseparable connection between motive and will which there is between cause and effect in physical nature. In the internal world of mind there is the self-consciousness of a freedom that is not perceivable nor conceivable in the external world of matter: the particular will is not the unconditionally necessary consequent of antecedent motives. It, or some allied entity in the individual, which, having abstracted it virtually from the concrete self, they call his non-bodily self, has a spontaneous, independent, arbitrary power to make this or that motive preponderate as it pleases, to choose this or that one among motives and to make it *the* motive; in doing which the self-determining principle is held by some to act without motive, of its own internal motion, without other cause or reason than pure self-evolution; by others, however, who think it not self-sufficing enough to dispense entirely with motives, to take remote account only of motives of so high and superlatively refined a nature that they do not weigh at all upon its freedom, insinuating themselves into its essence without actuating it, permeating and inspiring it without in the least constraining it.

It would seem a small matter whether such exceedingly subtile and highly sublimed motives are admitted or not; since, so far as there is the assumption of a kind of power, little or much, fine or coarse, which is above the reach of actuating motives and able nevertheless to work as it likes upon motives, absolutely free and independent in that function, we are no whit better off than if we assumed off-hand an arbitrary, self-determining power which could do entirely without motives. The initial difficulty is the capital one—namely, the conception, in any degree, of a power in nature so extraordinary, coming from an unknown without, having no genesis but an auto-genesis, deriving its subsequent energy from nothing but itself, subject to no laws of growth,

though manifestly growing in the individual with his mental growth; a power which, notwithstanding that it works as a part of nature, is not of the same kind nor has anything in common with anything else there—is without sympathy, affinity, or relationship with the things which it works in and upon. It is not entirely right to describe it as supernatural since it thus works naturally and constantly in the events of the world: supernatural it is in the primal source and perpetual renewal of its energy, inscrutably unnatural in the mode of its union with the natural.

If there be a power of this kind in the universe, the obvious and instant reflection is that causation is not universal, as all the world is in the habit of thinking and saying; that there is a large region of human events which lies outside the otherwise uniform law of cause and effect. It is a conclusion which cannot be evaded; for to say that events depend upon the will, and in their capacity of events are natural, and not to ask at all upon what their cause depends when it is will, may be lawful and right in pure metaphysics, but would be disastrous folly in physics. Were the conclusion rigorously admitted it would be necessary to repudiate all attempts to foresee, formulate, or reckon upon human events in so far as they are effects of will; for how reduce to laws phenomena which are the workings of a power that is itself above the reach of natural law? Unawares we find ourselves drifted by the theory into the startling necessity of supposing that the sum of energy in the universe is not a constant quantity; that the law of conservation of energy, though a most useful work-a-day theory, is at bottom an illusive hypothesis even within the limits of human experience; that there are now, and have been since creation's dawn, countless myriads of sources of self-creating energy which have poured their multitudinous streams into it continually. Creation of energy without end, infinite effect without cause! The great natural argument for the existence of God has always been that everything within human cognisance must have a cause, such being the necessity of human thought, and that for final cause of all things, except itself, there must be a cause of causes, a great First Cause. What then

of the will? We are brought at the outset to a perplexing dilemma—to the obligation of confessing either that the will, like every other mode of natural energy, must have a cause, or that a great First Cause is not a necessity of human thought.

In truth, we are tacitly to understand that it has a cause—namely, the will of God, inciting or restraining. Although not governed by motives and without any touch of earthly affinity, the upholders of a free will acknowledge willingly that it is wrought upon continually and effectively by that supernatural energy. A Divine grace is always at hand to give it help in time of need, inspiring and strengthening it to do well, dissuading or withholding it from doing ill. It is God's good purpose, says that learned divine, Dr. Isaac Barrow, 'to master our will, and to make us surrender and resign it to His just, wise, and gracious will;' and to make good His right 'God bendeth all His forces and applieth all His means, both of sweetness and severity, persuading us by arguments, soliciting us by entreaties, alluring us by fair promises, scaring us by fierce menaces, indulging ample benefits to us, working in and upon us by secret influences of grace, by visible dispensations of providence.' A stupendous array of motives, which it is a standing wonder any one ever withstands, seeing that they are wielded by the power of Omnipotence and guided by the insight of Omniscience. The odd and perplexing thing is that we are required to believe that the operation of these mighty agencies is nowise incompatible with the perfect freedom of the will, which indeed is supposed to be most free when it has surrendered itself to entire obedience. No doubt when it has thus made an entire surrender of itself, and become, so to speak, the pure channel of the Divine will, it is of the same holy kind, one with it, truly God in man; and without doubt, too, it is then at its best estate, most free, since it has reached in the completest discharge of its possible functions the fullest perfection of which its individual nature is capable; but with all that it is not easy to understand how it can be said to be free in the sense of not being determined. The freedom of the fullest expression of energy belonging to the

highest nature of a thing is intelligible; the freedom of an energy from any mode of determination is not intelligible to human apprehension, which apprehends only under the category of causation. Instinctively urged by this difficulty the theologians have found it necessary to call in the will of God as supreme determinant. Perhaps, however, they might maintain, if challenged directly and pressed to answer, that the high intuitions of consciousness are not fettered to apprehend under the category of causation.

So it has come to pass that, accepting the doctrine of invariable law in the physical world, they hold that the spirit of man stands above such physical laws and 'can co-operate with God Himself.' They believe that they can by such Divine co-operation fetter and so ennoble their wills, until they are finally delivered from the melancholy liberty of doing evil, and placed under the happy necessity of doing well. So believing, their consistent prayer is the prayer of Malebranche to be delivered from the fatal liberty of doing wrong,¹ and to feel themselves in the grasp of the hand of God, which will never let them go.² The highest evolution of freewill is freely to lose its freedom. Nor is this to be deemed, as to vulgar apprehension it might seem, a contradiction in terms, or the use of one term to negate the definite meaning of another, and so to leave both with the appearance of life in them but with all meaning taken out of them; rather it is to have the deep metaphysical sense of a mystical union of gaping inconsistencies or of actual contradictions which reaches its climax in the identification of opposites. In this relation, however, it will not be amiss to remember, by way of caution, that many persons do not thoroughly consider whether they distinctly know their own meaning, but deceive themselves in imagining that they have any distinct meaning at all; and that of the two issues

¹ Sauveur des pécheurs, venez me délivrer de cette fatale liberté que j'ai de mal faire, de la certitude du péché, de ce pouvoir que je n'ai que trop d'abuser du mouvement que Dieu ne me donne que pour m'élever jusqu'à lui. —Malebranche, *Méditations Chrétiennes*.

² 'The devout man,' says Foster, in his essay on *Habit in Religious Character*, 'feels this confirmed habit as the grasp of the hand of God, which will never let him go.'

—first, that opposites are identical; secondly, that meaningless propositions are made—the latter is the more probable.

The consistent advocates of the Divine inspiration of the truly free will used at one time to make large appeal to the will of the Devil, who worked through the evil desires and passions with which he inspired human breasts. Presumably there was a perfect construction of the brain in the first man, and for that reason there was no let or hindrance to an entire obedience of the perfect will in him to the perfect will of God; but unhappily injury was done to this excellent structure by the fall in Eden, and so the arch-enemy of mankind gained admission and made his congenial home there. They recognised justly, as moralists have always done, the existence of a double nature in fallen man—the higher and the lower nature, the spirit and the flesh, the good and the bad angel in him, the old Adam and the new creature—in like manner as they recognised two principles, a good and an evil one, warring always against one another in the outer world; and the Devil they acknowledged to be the lord of the part of man's nature the inclinations of which were evilwards. 'Doth Job serve God for naught?' cynically asks Satan, deeply sensible of the influence of motives upon the will to make it do well; and in the operation of the successive motives, each weighing more heavily, which he brings to bear upon Job in order to make him curse God, he affords us an illustration of the way in which he works upon the will to make it do ill. But it was plainly necessary, on the theory of a Devil always at work to beleaguer and besiege the citadel of human virtue, to limit his power, as God limited it in the interesting psychological experiment which in a caprice of freewill he suffered him to make upon Job; otherwise what would have become of human freedom? Had man been left under the melancholy necessity of doing evil, where would have been the happy liberty of loving God and of doing that which was right in His sight?

It was necessary that the Devil should have not unlimited power, but full power only to work his worst within fixed bounds; first, because he was in the ultimate event controlled by Divine power, who hath put all things under

Him, and without whom was nothing made that is made—not excepting the Devil and his deeds—and who (according to the Westminster Confession of Faith) has for ‘the manifestation of His glory predestinated some men and angels unto everlasting life and preordained others to everlasting death, to the praise of His glorious justice;’ and, secondly, because He wrought through the passions and other low impulses of the human heart, which, by the antecedent postulate as to the will’s nature, could not cross the intervening gulf to touch its inmost self-determining essence. It would be well could we have it plainly expounded somewhere why this inmost spiritual essence, being untouched by earthly affection or hindrance, unswayed by motive, accessible only to Divine influence, absolutely free to do as it likes, at any rate in the way of well-doing, does not like to rule as it might; but it is a problem which is suffered to remain as obscure as the question why the pure essence can habitually and easily cross the gulf between itself and the physical organism, when the gulf is quite impassable in the opposite direction. However that may be, it is plain that we have no means by which we can measure and register the quantity and kind of energy which the Devil exerts upon the will within the bounds set to his operations—no workable Diabolometer or Satanometer so to speak—and that we have here again a large region of human events which is outside the natural law of causation, and therefore outside the range of scientific knowledge; a region, moreover, of quite unknown extent, seeing that it is impossible to define its limits or to get them defined. Apart, then, from the disturbing and undefinable operations of an undetermined will in human events, we have the disturbing and undefinable operations of will determined by diabolic power. Meanwhile, if we are really to think of freedom as absolute and perfect in man—a perfect freedom from the necessity of any antecedence—we ought logically to think of it as free from all influence of God or Devil, as will, that is, in which the Omnipresent is not present and the Omnipotent has no power.

Notwithstanding these theories of a will that is itself an inexhaustible source of self-procreating energy and of acts

of will instigated by supernatural agency, men have always conducted practical life on an implicit theory of a quite opposite nature ; they have lived and acted in all places and at all times and on all occasions as if the will were governed by natural motives, and as if its operations could be reckoned upon with some assurance. The dogma of freewill has been a cherished dogma of the study, but it has not imbued the regulations made for the conduct of life ; exalted and esteemed as a theoretical article of faith, it has not been used as a working belief in human affairs ; an ideal of the imagination inspired by the heart, it has had no place in the work of the practical understanding. When it has been necessary so to train men as to be able to rely upon their conduct with certitude in the most arduous circumstances, they have been subjected to stern discipline by the rigid enforcement of uniform motives ; and accordingly the military organisation affords the best example of a case in which, the exact nature and number of the motives being known, their operation on will is plainly shown and confidently counted on. Were the motives as definite and as exactly known in every other case, and their secret operations through their manifold indirect, subtle and circuitous paths traced with equal plainness, is it not likely that a similar uniformity would be made known ?

Laws have been made from the earliest times and punishments inflicted systematically upon lawbreakers under the tacit implication that will is not an undetermined power, but that it may be influenced by motive to act in this way or that. The execution of a murderer would be of no use as a warning to likeminded evildoers had they the freedom of will not to be moved by the example ; the aim and use of punishment are to determine the ill-disposed will from the direction of wrong-doing and to constrain it to take the path of a higher and freer development in well-doing. And that has plainly been the slow effect of the administration of laws upon the conscience of mankind through the ages ; necessary in the first instance to constrain moral action, and by repetition so in the course of generations to ingrain the habit of it as a moral feeling, they become unnecessary as determinants in

well-constituted beings, once the sense of right and wrong has become instinct in their natures. In such case the reasoned object fades out of sight, and the operation becomes immediate and instinctive; it is an instance of use-made nature such as is seen everywhere in the transformation of laborious conscious into easy automatic function. Moral development of the individual is a growth of will in the line of good motive, moral deterioration a growth of will in the line of bad motive. The progress of mankind from lower to higher planes of thought, feeling and doing is the record of better action founded on and guided by wiser insight, and of the development of better feeling in consequence: higher feeling has followed improved thinking and acting, and so the quality of the will has been raised.

No one disputes that a knowledge of the past actions of men in different situations and circumstances of life is the foundation of a knowledge of the springs of human action on which we rely in our present and count in our future dealings with them. The study of history would be a barren labour if the operations of a self-determining entity left no room for dependence upon the determining effects of motives, nor would the most sagacious statesman in that case be any better off in the functions of government, notwithstanding a lifelong experience, than a fool. In every department of human activity the person who has had experience is esteemed a wiser guide than the new comer, because of the certitude that the thoughts and acts of men are not in any respect chance-events, but that what they have done before they will do again when actuated by similar motives in similar circumstances. The systematic provisions made for the education and training of the young—which are really means to manufacture them to an approved pattern by implanting in them the customary habits of thinking, feeling and willing of the community—social institutions and usages, forethought and skill in the conduct of affairs, all the operations of daily life in the intercourse of sane men are based upon the tacit implication that acts of will are not motiveless and haphazard, but conform to law and may be counted upon. Do I submit a dispute to an im-

partial judge in the full assurance of having justice done to me, I do it because I believe that he will decide according to well-weighed reasons of law, and because I do not believe in the hazard of his freewill. If a person of acknowledged probity and of known purity of life were suddenly to do something grossly immoral, and it were impossible to discover any motive for his strange and aberrant deed, we should ascribe it to an alienation of nature, and say that he must be mad. Let the will be free in the full metaphysical sense of the word, and it would be impossible to run an express train from London to York or to cross the Atlantic in a steamboat with the least assurance of safety. Did not men in some measure foresee the acts of their fellows from a knowledge of the operations of motives in their minds, they would have to await them in helpless uncertainty, as they await the decrees of the will of God.

The person who answers best, who alone answers near, to the metaphysical definition of freewill is the madman, since he exults in the most vivid sense of freedom and power, heeds not any counsels of reason, and does things which he does not himself foresee or meditate a moment beforehand, and which certainly no one can foretell; if it be not that he acts without motives, he acts from motives of which he is not conscious, and which no other person can penetrate. Consciousness plays him an ill trick; for while he is really the least free of men, irresponsible, his disease not he instigating his deeds, it inspires an intense and exulting conviction of the highest freedom. Is it not obvious that if sane men possessed free wills, they, like the madman, would be free from responsibility, since their wills would act independently of their characters, just as they listed—not otherwise than as a wayward wind was once supposed to blow capriciously ‘where it listeth’—and that no one would have much, if any, motive left to try to better his character? For why take diligent thought and pains to build up good motives into the structure of a character, and to reject bad motives, if he be subject to the chance of a freewill which need take no account of them? Consider this difficulty: if there be complete equilibrium, a perfect indifference, there

will be no decision ; if a decision in equilibrium, the fact is inconsistent with any essential connection between character and action.

No deep attention to their writings is needed to discover that the moral and religious authors who nurse the most fervent conviction of freewill, and reject passionately the notion of necessity in human actions, do nevertheless use language habitually which is imbued with the implication of determination, containing it, as it were, by silent involution.¹ Indeed, it is impossible for them to help it : the fact is embodied in all the perceptions, thoughts, feelings, even the modes of sensibility, of mankind, and in the inmost texture of the language by which expression is given to them ; for such thoughts, feelings, and words are possible to any individual now by virtue only of the law-governed acquisitions, the experience-built mental structure, of an infinite succession of generations of men. The exquisitely nice and fine movements which we perform in each act of seeing or hearing, without being in the least aware of them, represent the sum of an incalculable multitude of slowly elaborated experiences that have been organised as faculties or functions : they are virtually unconscious reasonings. Our intuition of space may well be in like manner the consolidations of an infinite succession of human experiences that definite movements on our part have always definite and uniform results which, when making them, we can definitely reckon on.

Be that so or not, however, there is not a word we utter, not a movement we make, not a sensation we experience, not a tool we make use of, not an article of clothing we wear, that has not the same far-reaching significance. Our forefathers, by intending their minds to realities, have established a harmony of thought with external nature which is a pre-established harmony in our nature. 'Oblige me with a light' is a trivial favour which one man begs and obtains of another, hardly deeming that he is asking a favour

¹ To say that the will chooses which motives to reject, and which to accept, what is that but to imply that it cannot act from the motives that it rejects, and must act in accordance with the motives that it accepts ?

at all; and yet if we consider the matter closely, and unfold the constitutional history of the event, so to speak, the request has stupendous contents; for what a long succession of toils and troubles, ingenuities and endeavours, trials and failures, accidental hits and misses of experiment, tedious steps of improvement it implies from the time when fire had not yet been discovered to the time—only some fifty years ago—when the lucifer match was invented! Before the person who asks the little favour exerts his freewill to ask it he ought to make a sort of silent recognition of the successive ages of human culture to the fruits of whose labours he is a joyful heir. Happy for him that they did not content themselves with capricious freaks of freewill, beginning nowhere and ending nowhere, but with many halting experiments, with slowly gained insight and tedious labour, patiently making each toilsome step gained the basis of new efforts to reach a higher step, multiplied their relations with nature, and brought themselves into ever-widening and closer harmony with the order thereof; so endowing him with a large capital of silent wisdom to start with, with the capacities of definite desires to urge him in the directions of progress, and with built up faculties of will to execute his desires.

To set forth explicitly in formal knowledge what is implicit in the whole course and conduct of human life would unquestionably be the exposition of a system of philosophy in which a self-determining principle had no place—in which a free, in the sense of an undetermined, will would be a meaningless superfluity. But is it not the fact that knowledge has its foundation in experience, and is the conscious exposition of what is unconsciously implied in human progress; that it exists in fact before it is self-conscious in thought? Implicit in action before it is explicit in formal thought, it grows out of the twilight of instinct into the daylight of clear consciousness; nay, perhaps we must go deeper than instinct, into the complete darkness of vital relations, in order to reach the foundations of that which we know self-consciously as reason. It is proposed nowadays to get a sound and substantial knowledge of the laws

of thought by a careful study of its genesis; the purpose is good, but it cannot plainly be accomplished by a method of introspection, which will never take us back to the beginnings, since the faculty of it comes to maturity only when thought has reached a high development. Is it then by a sympathetic study of the mental phenomena of animals and infants that we shall succeed better? It is a method of much fruitful promise, but at the same time inadequate and apt to be misleading, since we are unable to enter into the comparative simplicity of their minds with a corresponding simplicity of mind, and so are apt to misread and misinterpret the signs that we observe; and in the best event it is not sufficing, since it starts a long way from the actual genesis. Only by a close objective study of the unconscious operations of thought-generating organic matter shall we ever attend at the birth of thought. Find out the laws of adaptive interaction, in their simplest expression, of that organic matter which, when its energies rise above the horizon of consciousness, we call reason, and you will arrive at the foundation-facts of the highest thought. So far as the *Amoeba* reasons—and reason unconsciously it does in so far as it makes vital adaptations to its surroundings—it exhibits the principle of that which in its more complex evolution in the brains of the higher animals and of man is reason.

By a study of the operations of intelligence in its highest developments we perceive a reverse operation that brings us to the same physical result—namely, to reason become habit or instinct, that is to say, to reason incorporate in structure. The simplest proposition we can make—as, for example, that the dog barks—which seems neither to need nor to admit analysis, means actually the consolidation of as many laborious acquisitions as an habitual act which looks equally simple, since we perform it without knowing it, but which we have learnt only by long practice. Each simple affirmation or judgment which has itself been acquired gradually and fixed mentally, becomes, by association, an accessory idea of, and afterwards, by closer integration, an unconscious element of, a more complex judgment; and so the process goes on in ascending complexity to the formation of a

mental compound which means a great many simpler compounds or elements. We might compare it then to a grand and noble river which, when traced back to its source in a little rill, is seen to have grown by the successive inflows of many similar little streams.

We think so much of consciousness in the functions of human intelligence that we do not sufficiently realise how much the body can do without it, but insist wrongly on making it essential to operations in which it has really no essential concern. Men do not divine truth and then work to it with set deliberation: they reasoned during centuries before they knew a single rule of logic; made instinctive and traditional adaptations to natural laws before generalising about them; used language instinctively without dreaming that it was a slow elaboration through the ages, embodying the successive growths of intelligence; practised virtue as a custom before a single rule of virtue was ever formulated. Indeed, had not man been virtuous before he found out rules of virtue he would never have been virtuous at all. Knowledge is instinct in life before it is understanding, is in the air around before it is in the conception and speech; and when in mature season the unconscious bursts into consciousness, the man of genius is the organ through which the expansion takes place; he is the interpreter of its blind impulses to the age, and gives them thenceforth clear utterance and definite aim.

Such are the formidable facts which confront and contradict the metaphysical theory of freewill: compendiously stated, they are practical human life. For certainly the practical experience of the whole world from the beginning unto now is, that will as it works in human affairs is a power which does not stand outside the range of natural causation; wherefore when men have formulated scientifically their practical philosophy, when they have set forth explicitly the principles that are implicit in actual life, they will be hard put to it to find there a suitable niche for the doctrine of an undetermined will. Meanwhile the advocates of the dogma may continue to cultivate freewill as an ideal, making of it a sort of holy shrine in their minds, and from time to time,

as they bethink themselves, doing it reverence ; taking good care the while, however, to leave it in holy seclusion, and not to introduce it into the affairs of daily life.

Thus far then the dogma of freewill comes out as inconsistent—first, with the fact that true doctrine is the explicit declaration of what is implicit in the constitution and experience of mankind, the uprising into formal consciousness of that which existed tacitly below its threshold ; and, secondly, with the acknowledgment of the universality of causation within human experience. A third class of adverse considerations will be laid bare by a close criticism of certain commonly accepted but not indisputably warranted assumptions of the metaphysical method ; and it is with them that I go on to deal in the next section.

SECTION II.

WHAT CONSCIOUSNESS TELLS US CONCERNING WILL.

LET us now inquire closely what are the grounds and reasons of the metaphysician's clear conviction that he has a will and that it is free. His consciousness makes him the revelation in so plain and sure a way that all the counterarguments in the world cannot invalidate its direct and positive testimony. A pity it is that consciousness in this matter cannot swear its own interpreter. It will be well to examine rigorously how much it actually does tell him in respect of these two allegations—first, that he has a will ; and, secondly, that it is free ; since it may be that it does not directly tell him all that he is in the habit of believing and declaring it does.

Is it true then that we know immediately by consciousness that we have such an entity as the metaphysician means by will ? No, it is not true ; for it appears, when we consider the matter closely, that a great part of that confident dogma is not an immediate deliverance which is certain and cannot be disputed, but a mediate inference

which is liable to the causes of fallacy to which all observation and inference are liable. Consciousness tells us nothing whatever of a *general* will or an *abstract* will-entity; what it does make known to us is a *particular* volition when we have it, the expenditure of an energy in doing or in forbearing to do, and, antecedent to that energy, the possible choice of another course than the one adopted: an alternative course which might be taken if it pleased us to take it, which has perhaps been taken in similar circumstances before, but which we take not now because it does not please us to take it; if a lower course, because we have higher likings at the instant; if a higher course, because we have lower likings at the instant. Take notice here that the choice is *antecedent* to the energy we are conscious of as will: not known as a contemporaneous direct deliverance, and so having the certitude of an immediate intuition; known only through memory, and subject to the fallacies to which every act of memory, whether covering an instant or a day, is subject.

Consider further what is the 'we,' the *ego*, the person, who pleases or does not please in such case to do or not to do. Not any abstract entity but the concrete individual; not any unseen noumenon behind the phenomena, but the noumenon working in the phenomena; not any extremely sublimed and fine essence from which all substance has been eliminated, but a feeling, thinking and acting organism the whole of which works in each part, and each part in the whole. 'Tis 'I,' compact of nerve, muscle, gland, bone, who choose to resolve to do or not to do on each occasion, not any part or detached principle or sublimed essence of me. From his holiest feeling and his loftiest aspiration, let him torture himself as he will, the most saintly person cannot detach the influence of the most despised organ of his body. The creation of an abstract will that is supposed to execute the particular volition and its further fashioning into a spiritual entity is an inference or hypothesis, not a direct deliverance of consciousness; be it necessary or be it gratuitous, that is its undoubted character. With equal reason might one claim to make an abstract entity of sensa-

tion, for 'I' feel as well as will, and to maintain that this entity was necessary to produce each sensation; or to postulate a special emotional entity operating in each emotion; or, going further in the same direction of entity-making, to create a *spirit of greenness* which is the cause of green things looking green; or to discover a *spirit of stoneness* which lies behind the material nature of stone. In that way we might please ourselves to people nature with infinite multitudes of entities, or invisible spirits of visible things, but they would be superfluous in fact, as they are not apprehensible in thought, and of no interest save as playful essays of imagination always eager and pleased to exercise its energy. For it is noteworthy that the imagination needs no spur in order to work; unlike the reason, whose exercise costs the pain of effort, its function is too eager and easy, the hard matter being to hold it in and discipline it. That is the reason why it is so much easier to lie than to speak the truth: no training is required to learn to lie, but the sternest mental discipline is necessary to implant a habit of strict truth in thought and word and deed, and will not succeed then if the foundations are faulty.

What the metaphysician has done is plain enough: he has converted into an entity the general term which embraces the multitude of particular volitions, themselves varying infinitely in power and quality, and has then referred them all to it as cause. So he talks habitually as if will had always the same nature, whereas there is no such thing as one and the same will-nature; each will having its own nature and development, being itself an independent reality. With the disposition, powers, and habits of each mind as different as the constitution, temper and activity of each body, and with the several variations of temper in each body at different times, how can the will fail to be different? Like it may be in different persons, and on different occasions in the same person, but it is never identical; it is always individual, particular. A general will is not an entity, it is no more than a notion. No wonder that there is neither common end nor end to philosophical disquisitions concerning a notion of which each person is free to have his own notion.

If now it be admitted that in the common will-theory we have to do with an inference not with a direct deliverance of consciousness, the claim next put forward will be that it is a necessary inference, because there must be some basis of continuity, some bond of unity, between particular volitions, between the will of today and the will of yesterday. Some constant essence with sense of continuity and unity, something which is *one* behind the separate volitions, is a necessary postulate of thought; and it is inconceivable that matter can furnish such a basis of unity. The *ego* would be the sport of impressions, they say, if it had not a free power over them to hold and to reject, to associate and to separate; not otherwise, I suppose, than as in chemistry, were there no free chemical *ego*, definite separations and combinations could not take place—one element not leave one compound to join another, unless it were guided by that internal spontaneity.

Those who talk in that way think of matter as inert and inanimate; they fail to realise, first, that matter is not inert, there being in the simplest molecule the complexity of movement of the entire solar system; and, secondly, they lack the conception of the most complex matter and its manifold energies individuated as a living organism, and what that conception implies.

Now, in regard of the common conception of matter, it is plainly that of something gross and tangible, inert and subject to gravitation; and naturally so gross a conception of it is utterly inconsistent with any possible conception of the matter of mind. Because we cannot conceive a millstone having anything to do with mind, we protest that mind has nothing whatever to do with any sort of matter.¹ But chemical atoms, which we have the best

¹ It is certain that from all the millstones in the world heaped together we could not derive mind, nor from all the inorganic bodies in the world, nor from all the organic substances other than the most complex organic development of matter in the highest nervous system; but does it therefore follow that we could not get it from this last? Are not the energies of organic matter as different as its qualities? And what is the special energy of the most complex organisation of the highest nervous system, if it be not mental? Those who protest that it is not mental should at least tell us what it is.

reason to believe are not, like geometrical points, pure abstractions but realities, are exceedingly active, notwithstanding that they are invisible, intangible, inappreciable by sense of any kind, actually suprasensual—spiritualised matter, so to speak: though we might say of them, in Jeremy Taylor's words, that they cannot trouble the eye nor vex the tenderest part of a wound, yet it is by their union in infinite numbers that they form dimensions and constitute the gross matter of the world that our senses take cognisance of. Manifestly then the first necessity is a just conception of the infinitely subtle activities of the infinitely minute atoms of matter.

Next, in regard of the conception of an organism, it is necessary to apprehend and realise that it is a physiological union of various tissues and diverse organs, each tissue, and much more each organ, itself infinitely complex, so bound together in structure and function, and so unified by suitable co-ordinating mechanism, that the part everywhere works in the whole, and the whole in every part; nowhere else in nature are diversities and integration of diversities carried to such a height; nowhere is the realisation of complete unity in manifold diversity more signal. Since Bichat's time, who first directed and enforced attention to the properties of the particular tissues, showing that the life of the organism was the sum of the lives of their individual elements, we have learnt to know that the unity of organism does not mean a mysterious vital entity, of quite special and superior nature, non-material, hidden in the secret centre of things, and holding the parts together by a powerful spiritual grip, but that it is the expression of the complete consensus or harmony of the many and divers parts arranged in that organic form. Apart from all question of mental unity, there can be no question of the existence of a sufficient bodily unity.

There is in regard to the bodily organism a further consideration which is not always adequately realised—namely, that it is a self-adjusting and self-registering structure; the modifications which it undergoes through exertion passing not away without after-effects in it, but

embodied in the structure and made part of its nature, so that they enter into its life and function ever afterwards. Its life-principle is indeed a principle of continuity: in the living present the incorporate past is active. The organic registration affords an instructive instance of the operation of the law of conservation of energy in the fashioning of will; for we perceive that in an act of will, which always renders a next like act of will easier, not all the energy is expended in the outward effects that it accomplishes, but some of it goes to lay in structure the foundation of future will. So it is that will remembers and learns to will, exercise building up faculty, and conduct character; and that it becomes, according to its training, either the calm agent of strength, or the shifty accomplice of weakness.

It is in this organic registration, too, that we discover the physical basis of all memory. Memory being the recurrence of a mental state means physiologically the same part of brain in activity as on the former occasion. But that is not all, since there is in addition to the recurrence the consciousness that it is a *recurrence*—a reminiscence: it might recur without such consciousness, as it does in certain morbid states sometimes, and it would not then be mental memory. Now the physiological considerations that bear upon this recurrence are these:—first, the before-mentioned organic after-effect of the first function whereby it occurs the second time more easily; secondly, that although the same part of the brain is in action as before, it is the same part with the difference that it has been in action before, and has ingrained record thereof; wherefore the declaration which this after-effect makes of itself in consciousness must be something added to the first consciousness—that is to say, will be the consciousness of the recurrence; thirdly, that in every part and function of the organism the whole works consentient, and that such fundamental unity cannot fail to make, as all bodily states do, some sort of declaration of itself in consciousness. And if that declaration be not an intuition of the *ego*, what is it?

Having this individual unity and continuity of physiological organism, it will not be amiss to ask whether we

have not in it the sufficient basis of the unity and continuity of volition, the real and constant foundation of the consciousness of the *ego*. Impossible, says the metaphysician; a consciousness *one* and *continuous* through all differences and successions of states, not a totality of so many separate consciousnesses—that is what I cannot conceive as the subjective aspect of the unity of organism. But why not, if the organism be, as it plainly is, one and continuous, and be not, as it plainly is not, so many separate elements, any one of which can have life at all apart from it? Let us try to understand the why not, which is this or something like it: the organic unity, being of material breeding, is not self-known (a plain assumption of the whole question), does not make itself known within, is known only from without by observation of sense; but inasmuch as a unity is known from within, which it is impossible should be the unity that is known by observation, the conclusion is inevitable that it must be the unity of an internal something, an immaterial *ego*. It is a purely internal intuition of unity, and although there is a corresponding external unity manifest enough to others, that has nothing whatever to do with it. We are required to reject the real unity which we perceive and know, and which others perceive and know, and to create another unity to run parallel with it, in order to keep rigorously separate the domains of subjective and objective observation; not minding the while to consider adequately how that any present phenomenon of self-consciousness is possible only by reason of past states of consciousness that were excited objectively and have been wrought, so to speak, into the structure of the mental organisation. Why not, it is natural to ask, a unity not of mind separately nor of body separately, but of mind and body, known by the two ways of internal and external observation? Why not, indeed, find here, as we well might, the concurrence of extension and thought, of body and mind?

Considering that it is not good philosophy to multiply causes needlessly and to invent secret powers to do that which there is an obvious and sufficient power at hand to do, it is clearly our duty to find out what the body can do

by itself in the way of maintaining unity and continuity, without help of an imposed intangible entity which may after all be superfluous. At any rate, until the body's incompetency has been plainly demonstrated by a rigorous and exhaustive preliminary inquiry into its powers, and the necessity of a cause of an entirely new order so proved indisputably, the hypothesis of a will-entity to supplement its deficiencies cannot be accepted as a *necessary* inference. Rather may we call it the introduction of a cataclysm by way of explanation, and compare it to the catastrophic explanations that used at one time to be fashionable in geology. That being so, the analysis of the so-called direct and positive testimony as to the existence of a will-entity has brought us to these two results—first, that the testimony is not an immediate deliverance, but a mediate inference; and, secondly, that the inference is not a necessary inference, since another theory capable of accounting for the facts is possible and ready at hand.

If an intruder of an inquiring turn of mind, unawed by the conventional assumptions of metaphysics, were to venture into that province of thought, fixed in resolve to question freely and think sincerely, he might perhaps be tempted to call in question the absolute value of that intuition of unity which self-consciousness yields, and to dispute whether it does bring us into so immediate and certain a relation with the noumenal *ego* as is assumed. From the high metaphysical standpoint he might well argue that we never can know the *self-in-itself*; that pure abstract noumenal mind is as unknowable as pure abstract matter; that the only knowable is mind in a state of determination, that is, in a particular state; that the highest intuition of self-consciousness, having that character, has therefore no more authority than any other phenomenal manifestation. Moreover, from the same standpoint he might go on to make this reflection: that the consciousness of unity and continuity is after all no more than a condition or form of thought, a category under which we, by our infirmities or limitations, are bound to think, just as we are bound to think under the forms of time and space. I perceive and think the world under the

conditions of my senses and faculties, which conditions are the forms of time and space ; and thereupon I say that the external world exists in time and space, making of time and space sorts of realities. They are really not existences of that kind ; they are relations of two terms—the self and the not-self. We have behaved in a like manner with regard to continuity and unity, playing upon ourselves the trick of transforming a form or condition of self-consciousness into a direct intuition into the *self-in-itself*, and so into an absolute revelation of the unity of pure mind.

It might be hard to see an end to the inquiry were we once to set diligently to work to examine and to set forth how much innocent dupery we habitually practise upon ourselves in the region of metaphysics. Being compelled in so attenuated an atmosphere to make violent exertions in order to sustain a flight at all, we imagine that we are making a great advance when we are whirling in a circle, or are little better than stationary. The term consciousness is by no means free from misleading vagueness and obscurity of application ; it being a common practice to speak of *states of consciousness*, as if consciousness had *its* states, were really an entity behind the states and had existence apart from them, when it is itself only a state of something else, whether that something be soul or body ; not otherwise in fact than as it is the practice to speak of the will exercising its several wills, whereas it is the man who wills and there is no general will apart from the particular will. There is no such existence as a general or abstract consciousness in the individual ; it is as imaginary a noumenon as abstract will or abstract force ; there are so many particular consciousnesses ; a general consciousness is merely a notion. Indeed, if there be one thing in the world which is particular to the individual, a special quality of his which he has no better warrant to abstract from his personality and to make absolute than his individual temper or individual gait, it is consciousness. We are entirely ignorant what are the physical conditions of consciousness, which nevertheless we must admit to exist wherever mind works by brain. Obeying the necessity of having some physical hypothesis, we may

suppose—and one supposition will answer our purpose as well as another where any hypothesis wants positive base—that each thought has, whether on the same side or in the opposite half of the brain, its reflecting centre—that is to say, a correspondent or consentient centre in which it is instantly repeated or reflected with more or less completeness and exactness; such reflection of it being the condition of consciousness. What a gross absurdity it is at once seen to be to find in the particular consciousness anything that transcends its antecedents, anything supra-individual, anything universal or absolute!

Resisting these easily made digressions, which at every turn tempt us to leave the main track of the argument, let us now examine critically the second positive declaration concerning will which consciousness is said to make—that which is interpreted to mean that the will is free. Is consciousness as clear and competent a witness as it is thought to be? One thing is plain at the outset: that it only illumines directly the mental state of the moment, revealing nothing of the long train of antecedent states of which the present state is the outcome; all is dark beyond where its light immediately falls, and it cannot testify anything concerning what is going on outside the range of its illumination, any more than a person in the light can testify concerning what is taking place silently near him in the dark. As a great ocean wave might be supposed to rise so high as to catch on its crest the glow of the rising or of the setting sun, while the waves around remained below the level of illumination, so a mental state rises above the threshold of consciousness as the outcome of the energies of multitudes of more or less active states that remain below the threshold. Consciousness makes known the actual choice or volition, but does not make known the pre-existent order of events: it does not reveal what has taken place and is taking place in the unilluminated region: it is the self-revelation of the moment and no more. But how infinitely small is that revelation compared with what we learn by observation and experience of self and of others and by the history of human doings in all times and in all places,

needs not to be pointed out. The one is the coruscating point of a moment, the other embraces length of time and extent of space. As the testimony of consciousness moreover is *immediate*, that is to say, is strictly the expression of its *present* state, it cannot by the nature of the case have *direct* regard to any former state of consciousness; otherwise we should have to admit that a present state of consciousness could be itself and a former state of consciousness at the same instant. If it steps beyond the instant, we have no longer to do with the direct deliverance of itself, but with the indirect evidence of memory of antecedent consciousness, not with introspective certainty but with retrospective fallacy; staying in the instant, how can it help falling into the illusion of an undetermined will?

This last reflection, if followed out to its logical upshot, will be found to reach far, since it implies that a present state of consciousness has not, *quâd consciousness*, real continuity with the consciousness of yesterday or of a year ago, or of thirty years ago. The continuity is not a continuity of consciousness but a continuity of memory, the basis of which is not consciousness but organic registration. Now inasmuch as the self of today is very different from the self of thirty years since, and as moreover the quality of the present state of consciousness, even when it is a recollection, connotes and witnesses to the *present* self, it clearly is not the consciousness proper to the *then* self; *that* it is impossible to revive; you might as well demand of an adult that he should retread the infantile steps which he made in learning to walk. The sober truth is that there is no abstract consciousness with the intuition of identity, no actual unity of consciousness; there are so many particular consciousnesses, and the thread of continuity running through them is not a conscious thread but a continuity in that which lies beneath consciousness. We should be in a bad way if we were compelled to base the certainty of identity on consciousness alone.

Before assenting to its testimony concerning an undetermined will as final and sufficient, it behoves us to inquire and consider well what has been going on in the unilluminated region. Now whoever will be at the pains to carry his

volitional self-inspection patiently back from the present state of consciousness to that state which went before it, and from that again to its antecedent state, and so backwards along the train of activity which has issued in the latest conscious outcome, lighting up in succession as well as he can each link in the intricate *nexus* of many-junctioned associations, may easily convince himself that he would not have a present state of volition were it not for past states of volition. Whatever be the nature of will, it is certainly as impotent to will without previous acts of will as a child is to talk and walk which has never learnt its words and steps. In order to have liberty of will it is necessary to have not only the absence of constraint so that it may act freely, but the presence of capacity or power so that it may act at all; it is of no use being free to read Homer if one does not understand a word of Greek, or to play on the fiddle if one cannot distinguish one note of music from another. The present volition contains the abstracts of many former volitions by which it has been, literally speaking, *informed*.

No one who reflects adequately on the matter will deny or seriously dispute that an individual's thinking, feeling, and acting as he does at any moment of his life is the outcome of his nature and training, the expression of his character; that his present being is the organic development of his past being, the issue of a pre-existent order; that he is linked in a chain of causation which renders it impossible he should ever transcend himself. It is a chain, too, which a little reflection will prove to reach an indefinitely long way back in an ancestral past. As it is evident enough that a person inherits a father's, grandfather's, or more remote ancestor's tricks of manner, of speech, of walk, of handwriting, of gesture and the like, it may be without the least imitation on his part, since the father or grandfather was perhaps dead before he was born, so it is not less evident that he inherits modes of thought and feeling and will which, being characteristic of him individually, seem to those who are familiar with him to be essentially spontaneous, especially his own. In the internal parts of the body, as in its external configuration, and especially in the supreme structure of the

brain in which all parts, internal and external, have representation, direct or indirect, there are lines of ancestral resemblance which condition his modes of thinking, feeling, and will—all his modes of consciousness. When he has had the inspiration to do well in some sudden and urgent emergency of life, in which he hardly knew at the time what he did, he might justly give thanks to the dead father or grandfather who endowed him with the actuating impulse or the happy aptitude which served him so well on the critical occasion. Thou didst not behave like a fool in that overwhelming emergency? Claim no merit thyself in the matter, but render deep and silent thanks to the giver. The circumstances of the particular crisis, the bodily change incident to an epoch of life, the novel stimulus of a fever or other bodily disease, or some occult cause of which we can give no account, will kindle into activity an ancestral quality that had been latent till then, unnoticed and perhaps unsuspected. What man is there who does not, in his manner of making love to his mistress, show some trait of character and behaviour which he never noticed in himself before, but which he might perhaps have noticed in his father had he been present at his father's wooing.

It must seem strange to those who view mind from a pure psychological standpoint that such ancestral aptitudes should exist in it for a long time in a perfectly silent or latent state, without the least consciousness on its part of their existence, and start suddenly into activity on the occasion of some unforeseen stimulus. Where are they during all that time of latency? If in the mind, how is it that the mind does not comprehend its own contents? It will not help to say that they are in the memory, for how can the memory contain that which, never having been personally known, has never been put into it? Is it that we must admit unconscious mind; and if so, what is its relation, on the one hand, to conscious mind, and, on the other, to the physical organisation of mind? Is brain, after all, unconscious mind? The fact, however, is quite consistent with the experience of one who is hugely pleased with some brilliant conception or expression that occurs to him, and

which he believes to be entirely original, when the real truth is that he met with it in some author years before, stored it unawares in a recess of his mind, and now brings it forth in all the freshness of novelty as a new birth of thought. He meanwhile, happy parent, cackles over it with delight, like a hen that has just laid its egg, or is as proud and pleased as a woman who has just accomplished the nowise original or uncommon business of bringing a child into the world. Such the naïve joy of production everywhere in nature !

Here, then, is another instance of mental being that is ignorant of its being ; an instance not easy to explain on the pure spiritual theory of mind. It is plain proof at any rate of the incompetence of self-consciousness to perform a complete mental self-inspection. Nor would it be right to ignore such unconscious mental being on the ground of an assumed non-intervention of it in conscious life, seeing that, though latent, it is not entirely passive ; for besides its deep, silent, but effective work in moulding the mental nature, and weighting the expression of it in speech and conduct, impulses from its depths spring into consciousness unawares oftentimes, we know not how or why. Now and then in everybody's life it happens that an unforeseen impulse starting forth from the unconscious depths of his being drives him to say or do what he had not the least intention to say or do a moment beforehand, or in like manner withholds him from doing what he had full reasons and motives to do. It is not improbable that the singular dæmon of Socrates was an impulse of that nature, unmotivated in consciousness but not so in the character ; a kind of inspiration apt naturally to spring up in a richly endowed, much-meditative mind that was habitually exercised in observation and reflection. So also may it have been with those fine ideas or intuitions of Plato, which came into his mind in so unforeseen and startling a way that he imagined them to be reminiscences of a former higher existence. How is it that when two persons give the same opinion or counsel in almost the same words in the same circumstances the effect is sometimes so different ? Is it not because there is the weight of character behind speech, the depth of inarticulate nature

beneath the partial and inadequate art of expression? The total energy in each case is, if I may so express myself, the sum of the potential and kinetic energies of the individual. A great character, like a great work of art, moves men not so much by that which he expresses as by what that which he expresses suggests. It is a very poor definition, then, of the *ego* to make it, as some do, the sum of agreeable or painful sensations, actual or ideal, which determine the conduct; when there is not a state of consciousness, as known to self or as revealed through its proper channels to others, that has not the whole character, mental and bodily, beneath it.

When we reflect how much time and what a multitude of divers experiences have gone to the formation of a character, what a complex product it is, and what an inconceivably intricate inter-working of intimate energies, active and inhibitive, any display of it in feeling and will means, it must appear a gross absurdity for any one to aspire to estimate and appraise all the component motives of a particular act of will. Its sources are too remote and hidden, the paths of motives are too fine, intricate, circuitous and various, to admit a complete analysis of its constituent parts: the keenest self-inspection in the world can never make them plain, since it is not possible to seize and measure each minute and remote operative thrill of energy, to bring all the coefficient factors into the light of consciousness. As well think to fix and measure the force of every little wave that goes to swell the great tidal wave that dashes finally upon the shore, or—a less complex but perhaps juster comparison—to measure the numerous and exquisitely fine and delicate thrills of motion that make the varying modulations of the human voice. To dissect any act of will accurately, and then to recompose it, would be to dissect and recompose humanity. Acts of will being acts and manifestations of self, outcomes of the person's essential nature, a thorough self-knowledge is now, as it ever has been, an unattainable aim of knowledge. To affirm that will is ever undetermined is then to postulate an omniscience of self in face of the certitude that not oneself only but every self is inscrutably complex. Nevertheless,

the philosophers who refuse to acknowledge the incompetence of self-consciousness must continue to do it.

It is in the natural order of the development of the mental organisation, indeed a daily experience of it, that energy becomes element, so to speak, the conscious motives of past years being thus incorporated structurally as unconscious factors in the motives of today: there is the materialisation of motives as the basis of future function, the structuralisation of simple function as the step of an advance to a higher function. We can no more bring back the motives to consciousness in their primitive characters than we can bring back the life-function of a leaf which is embodied in the structure of the branch on which it grew; or than we can, in our instantaneous visual judgments of size, distance and the like, rehearse in full detail the slow and tedious steps, now incorporate in structure as habit or instinct, by which they were originally acquired.

The progress of intellectual growth is a progress from the concrete and simple to the general and abstract—from the feeling to the image, from the image to the idea, from the simple idea to the complex idea, from complex ideas to abstract conceptions; thereupon the general or abstract term becomes the sign of a class of perceptions or conceptions, is used as a convenient representative unit or substitute for them, like an algebraic symbol, and functions as such in subsequent mental operations; and this substitution of substitutes in ascending abstractions goes on as far as our minds are able to go in that direction. One may easily imagine, as correspondent on the physical side, so many superimposed layers of cerebral structure successively organised in function, higher centres being brought into play to co-ordinate lower centres—superordinate to them subordinate—and the whole together forming the *mental organisation* or the texture of mind, so to speak. When we wish to know the true meaning of the abstract, to test rigorously what it actually represents, we must always go back to the concrete; and when we do that we find that in the last resort it represents the mode of affection of an individual by an object or a class of objects and his special mode of reaction to the

object. That is his apprehension of it, which apprehension or mental *grasping*, be it noted, includes *movement* as a constituent element; is not, as commonly implied, receptive only, but is also reactive—a bi-polar event, sensory and motor.

Little as we think of it, the discriminations of sense, whether of sight or of touch or of any other sense, imply movements of muscles, without which they would be impossible; all the impressions which it is capable of receiving might be made on each sense without any discriminative perceptions on its part, in the absence of the proper motor adaptations by the muscles connected with its organ. Indeed, without muscular action it may be questioned whether we should feel at all. In the first instance, the impression upon the sense produces a disturbance of equilibrium which discharges itself in vague motor reactions on the external world; but these motor reactions become by degrees special and adaptive. Now mental development in man does not stay at this sensori-motor level; for the adaptive reactions are duly represented or registered in the higher centres of the brain, and thereafter are not expressed externally in visible movements, but take place internally in their cerebral representations, such internal operations being what we call perceptions or ideas. Thus ideas signify fundamentally adaptive reactions at one remove; complex ideas combinations of such representative reactions; and abstract ideas cerebral representations at still higher removes. The understanding of an abstract term, or each operation of our highest reason, implies then a deep fund of slow acquisition by culture and exercise, not fundamentally different from, though vastly more delicate and complex than, the faculty of performing some skilful bodily movement which has been gained by diligent practice: as impossible to the undeveloped and feeble intelligence of a low savage as the cleverest feat of a juggler is to an untrained child. The commonest operations of intelligence postulate a succession of functions that have been capitalised in structure as faculty.

A very rich fund of faculty is of necessity presupposed when will is influenced by reason in the moral sphere, and so acts in its highest capacity; for the supreme reason which

then inspires it is not any simple, pure, spiritual entity that requires no support in experience, but it is the highest and most refined outcome of enlightened experience; something which comes not miraculously into a man but grows in him by consummate development from the not supreme, and is no more possible without it than the flower is possible without the plant. To know the real value in sterling coin of the fine theoretical talk about the declarations of supreme reason one must bring them in the last resort to the test of practical application. And it is the same with moral principles: the difficulty in morals has never been the enunciation of lofty general principles, but the application of the principle to the particular case; and the eternal barrenness of books about ethics is that they may give us no code of exact rules to help at this practical juncture. Even Kant, sad to say, sends us to common utilitarian standards for the practical uses of his grand categorical imperative.

To search adequately into the unilluminated region of a person's character, in order to find out the motives of his conduct on every occasion, would manifestly necessitate the complete unravelling of his mental development, if it did not compel us to undertake, in historical retrospect, an analytical disintegration of the mental development of the race from its beginning. But a very cursory inspection of any one's behaviour suffices to show that there are many energies at work below the threshold of consciousness, whenever an energy rises above it as a conscious state. Hence come the gross and ludicrous illusions into which men oftentimes fall with regard to their motives on particular occasions, the subtile ways in which they innocently dupe themselves, the signal self-deceptions of which they are sincerely capable. An actively conscious state attracts to itself reinforcing energies of consonant vibrations from the infraconscious depths of the character, grouping around it the ideas and feelings that are of a sympathetic nature, and thus, once cherished, obtains an abundance of congenial support, and easily feels itself amply justified.

A person is persuaded that he has acted in full freedom of will from certain high motives of which he was conscious,

when these, after all, were not the real motives that actuated him, and when even a wayfaring man, though a fool, may perceive plainly that they were not. How is it that friends of humanity are often the enemies of their homes, and that undetected wife-poisoners make zealous professional philanthropists? I am not sure whether one person who lived in the society of another for a month, in circumstances fitted to strain and test his qualities, though he might not be a particularly acute observer himself, would not know more of the other's real character than the latter would know of it himself after years of toilsome introspection and scrupulous self-analysis. Certainly we may get a truer explanation sometimes of a person's conduct on a particular occasion by a knowledge of the characters of his near relations than by his exposition of his motives or one's own divination of them; for in the traits of their character we may see in full development, written out, as it were, in plain characters, that which is potential mainly and of occasional outcome in him. 'Tis a philosophic use to make of relations to use them to teach self-knowledge.

When acts appear to be incommensurate with motives, as they sometimes do, or when the same motive appears to produce different acts, the just conclusion is not that an arbitrary power has intervened capriciously and upset calculation; but that the motives which show themselves in the light of reflection are only a part of the complex causation, and that the most important part thereof lies in the dark. When the same motive acts differently in different persons or in the same person at different times—when, for example, one sacrifices wealth, repose, reputation, even life itself, for a motive which scarce touches another; or when one man is moved to the depths of his being by the glance of a woman which has no more effect upon another, or perhaps upon himself at another time, than upon a statue of marble—it is ridiculous to speak of the motive being the same: the so-called motive is hardly more than the occasion of the unloosing of the real intimate motives that are immanent in the structure of the character. If the *ego* represents the consensus of the several parts of the organism,

it is plain that disorder of any part will affect directly the consensus, and so indirectly the disposition of the *ego*, which must needs thereupon react differently to a stimulus from what it would have done had its temper not been so modified. A face that provokes instant aversion in one person may stir as instant a liking in another, because its features are signs that appeal by a subtle eloquence to antipathic or sympathetic qualities in the beholder's nature; the like-kindness or unlike-kindness of nature being itself perhaps the result of the embodiment of intimate ancestral relations between persons of similar character and physiognomy. Would you learn best what a person's motives have been, what is the real worth of the freedom of will that he has enjoyed, study the history of his life; that is his character, and there you will find the unequivocal record of what he has willed.

It is of the first importance, when discussing the determination of will by motive, to apprehend clearly that motive and cause are not the same things, and to take diligent heed not to confound them. The motive may be little, seemingly quite trifling, and the effect something vastly out of proportion to it, for the motive is the slight touch which liberates the pent-up forces, the sum of which and of conscious motives together constitutes the cause. That a little thing will produce a great effect when the mechanism is accurately framed and fitted to respond to it, we know as well by the easy starting of a locomotive as by the violent sneezing which a grain of snuff in the nostril will occasion; when cutting or tearing the mucous membrane of it would have no such effect. In like manner, by touching a button with the little finger, or by giving a sharp tap to a piece of dynamite, one might, if suitable preparations had been made beforehand, blow a thousand persons into eternity. The touch or tap may be the motive, but is not the efficient cause in that case; it is the initial step of a series of events which issue in the explosion. Things being disposed exactly as they were in a complex sequence, the result was a necessity; but a very trivial intervention, disarranging the order of the nicely adjusted antecedents, would have sufficed to prevent

the explosion. So in some sort it is with will, which in every case is a most complex involution of energies; the motive which occasions the discharge is not the cause, it is one of the many co-operating conditions the sum of which is cause. On what seemingly trivial things—the purest hazard or the meanest incident—have the great movements of the world sometimes hinged? Had Cleopatra's nose been a little shorter, says Pascal, the whole face of the earth would have been changed.

What an awful and overwhelming reflection this of the momentous issue of trifling motive, when made in reference to individual life, if one really possessed freewill! A minute omission, a trivial commission at a critical juncture, which a little sharper foresight or a little more resolution might have avoided, has turned the whole current of a life. One would be driven to take refuge in fatality in order to escape a crushing weight of despair, if a single wrong choice, an accidental inclination this way or that, could have such momentous issues, so awful the responsibility otherwise. Be comforted: you are at the mercy of no such accidents; the trivial incident was but the occasion of the internal explosion, so to speak, and without it or under the impact of some other equally light motive the individual nature would have declared itself and had its way. The will is not determined by motive but by cause—that is to say, by the sum of conditions, passive and active, on which the event follows; in other words, it has as antecedents, not only the motives of which we are conscious, but the motive energies that are active below the threshold of consciousness.

It is easy to see how, in the absence of any knowledge of these infraconscious energies, men might fall into the opinion of a freewill; for when the will acted without apparent motives, and more particularly when its action was not in accord with the apparently prevailing motives, it was the most natural thing in the world to ascribe the impulse to caprice, freedom, something self-determining in it. Beholding with surprise the very different volitions of the same person in the same circumstances, and reflecting on the similar experiences of self—a seeming identity of antecedents

with a manifest diversity of consequents—it was an obvious question how the individual could form so different a judgment and exercise so different a will were the will not free. The answer of course is that he was not the same person and had not the same will; any more than he is the same person and has the same will at puberty as in childhood, in manhood as at puberty, in old age as in manhood, in the hour of death as on the day of his marriage. Here, too, comes plainly out the justice of the argument on which stress has been laid by sober-minded writers on philosophy—that the right and proper opposite of *necessary* is not *free*, but *fortuitous* or contingent; the contingency or chance lying not in the absence of determination but in the presence of unknown determinants.

At this point, then, I hope to have said enough to establish my second proposition, and, having first proved to the metaphysician that consciousness does not tell him that he has such a will as he imagines, to have now proved that it has not the authority to tell him that his will is undetermined. He has based upon its declaration a superstructure which it is unable to bear. Be the doctrine of an undetermined entity true or not, consciousness is not competent to decide the question by an immediate intuition. It will not be amiss to go on now to make a further examination of the nature and conditions of the authority of consciousness.

SECTION III.

CONCERNING THE AUTHORITY OF CONSCIOUSNESS.

Is there not large assumption, and perhaps a good deal of fallacy in the large assumption, made on behalf of the authority of its self-intuitions? Let the inquiry be sincere and searching, and it will disclose reasons to suspect something illusory in the assertion that the knowledge of mental states through self-consciousness is more certain and positive, because more immediate, than the knowledge of external

objects through the senses. The latter knowledge is after all just as immediate in itself, since it consists actually of states of consciousness.

When I perceive an object it manifestly is not the object that is known to me directly, but the state of consciousness: the odour is not in the rose, but in the rose-smeller; the colour is not in the flower, but in the flower-seer; the harmony of fine sound is not in the instrument, but in the sensibilities of him who hears it, existing not for him who has no ear for music: the external conditions of colour, odour and sound are not in the least like the sensations which they excite. Whatever it be *mediate* of, however, the state of consciousness is itself *immediate*. In like manner, the knowledge of those states of consciousness which are described as immediate—the Cartesian *cogito*, for example, which is to convince me that *I am*—is without doubt *immediate* in itself, but it is none the less *mediate* of something of which it is an affection; and this something, if we suppose it to be a mental self, is far more difficult to know in itself than the external object, being no more than it within the compass of introspective intuition, and, unlike it, not being within the compass of objective observation. A state of consciousness that is at all definite, whether of internal or external origin, cannot certainly be either the subjective or the objective thing in itself: it is a relation of self and not-self, and implicates the one as necessarily as the other term. *Cogito, ergo sum*, ‘I think, therefore I am,’ has a ring of transcendental authority, until we interpolate after ‘I’ the quietly suppressed but none the less surreptitiously understood ‘who am,’ and let it read, as it should read, thus—‘I [who am] think, therefore I am;’ after which it does not appear to carry us beyond the simple and subjectively irreducible fact of consciousness, beneath which, it must not be forgotten, there is in all cases the more fundamental fact of an organism that is *one*.

To assert that the feeling of which we have direct experience is not bodily but mental, is to make two statements which are not self-evident, and which certainly cannot be

proved; for, in the first place, we have no means of knowing that it is not bodily, since it has never yet been shown, though it is freely assumed, that consciousness is not the function of a particular bodily structure; and, in the second place, we have no means of knowing that it is mental, or at any rate we do not know that in affirming it to be mental we mean anything more than that it is *sui generis*—that is to say, an experience distinctly different from that which we get by any other channel of knowledge of what bodily function is. Mental in that sense, and special in any sense, it certainly is, but the question really is whether the special result be due to the special channel through which the information comes, or to the existence of a special entity; to our mode of apprehension, or to the secret presence, in the background, of a substance which is not substance, being insubstantial—immaterial substance. Here, again, we strike upon one of those expressions that seem to common apprehension to be a contradiction in terms and a mode of robbing language of definite meaning, but which the mystical sense of high philosophy perceives to be a conjunction of opposites that bespeaks a deeper unity.

We may acknowledge readily that the direct experience of consciousness is quite unlike our experience of any other bodily function, and ought to be described in different language, but it follows not therefrom that it is not bodily experience. Metaphysics will remain in any event a special study; not perhaps as the study by a physical being of something that has no essential relation to physics, since physics plainly lies beneath psychics, but as an aspect of physics known by another channel than any of the ordinary sense-channels by which we know physics—something which in that sense is truly beyond physics (*μετὰ τὰ φυσικά*). It is impossible to describe a sound in terms of sight, or a sight in terms of smell, or a touch in terms of taste; a green sound or a blue smell or a bitter light would not be thought by sane men to be terms of much meaning; but these different senses may all be affected by one and the same object through its different properties, and they are all functions of one and the same body. It is protested loudly

enough that movement cannot explain thought; and it certainly is impossible to think the transformation of that which we perceive objectively as movement into that which we are conscious of subjectively as thought: to say so is equivalent to saying that light cannot be heard, nor sound seen, nor one mode of perception ever be another mode of perception. But if any one could conceive himself capable of perceiving movement subjectively—that is, by self-consciousness, and of perceiving thought objectively—that is, through the senses, the reconciliation might not be inconceivable; in that case metaphysics, objectively studied, would be the physics of mind, and physics, subjectively studied, would be the metaphysics of matter.

We do not insist upon keeping rigorously apart, because each is special, the respective testimonies of the several senses; on the contrary, we justly insist on bringing them together, comparing and combining them so as to get the fullest information we can about the object by which they are severally affected; we will have the concordant testimony of two or three witnesses, or rather of all the witnesses that we can succeed in bringing into relation with it. The consequence is that one witness supplements and sometimes corrects another, and the evidence is strengthened. When I know an orange, I know it by what sight and touch and taste and smell have respectively told me about it, my perception of it being the organised association of their experiences; and if one of the witnesses chances to be mistaken the other witnesses come in to supplement its deficiencies or to correct its mistakes. But it is not so with the internal revelations of consciousness; it works alone, independent and self-sufficing; and if it chances to go wrong there is no one to warn or to correct it. It can never feel therefore that it is wrong and that it requires to be supplemented or set right, any more than a particular sight or sound can be self-corrective; indeed, it never is wrong in its direct deliverance, since this is purely the expression of its state at the time, the direct statement of its immediate experience. There is no doubt of the feeling, be it sound or morbid, and that is all that there is no doubt about.

But to lay hold of that indisputable fact and forthwith to base upon it the dogma of an infallible authority of consciousness with respect to the worth of these direct deliverances, the value in sterling coin of experience which they represent, is a procedure that is by no means legitimate; they may be sterling or they may be trash; it merely makes them known, as the sun illumines indifferently mosque or mud hut. Any direct deliverance of consciousness at any moment is what it is by virtue of the manifold objective and subjective experiences of the individual, by which has been built up by degrees the mind-nature of which it is the present outcome; and its value, little or much, as true or as false coin, depends upon the character of these antecedent processes. It is vain pretence then to discover in the intuition of consciousness an immanent criterion of truthfulness, for whoso begins with the *ego* will infallibly end with the *ego*: the inward revelation must be brought into comparison with the knowledge obtained through other sources in order to be tested and approved. Can there be a greater absurdity, when we think of it, a more completely knowledge-annihilating device than to pretend to keep provinces of knowledge, however acquired, rigorously asunder! To assert liberty and self-sufficingness in one science, and necessity and interdependence in all other sciences, is really the negation of all science. It is a gaping contradiction in the very foundation of knowledge, which renders any stable superstructure impossible; for how can man, being one, have real knowledge unless it is *unity* of knowledge? How make for himself a synthesis of the world if he is required to preserve an absolute separation, an impassable chasm, between two regions of knowledge?

If you would know what is the positive value of the direct deliverance of an individual consciousness, you must compare it with the deliverances of consciousness in other persons; it must be supplemented and corrected by these aids in the social organism, as one sense is supplemented and corrected by another sense in the bodily organism. My subjective states are to be appraised by another's objective observation of them in their modes of outward expression,

as *his* subjective states are to be appraised by *my* objective observation of them. Assuredly they are not of the least value except in their objective relations; for however priceless to him as direct intuitions of his consciousness, they cannot be communicated by direct sympathy to another person's self-consciousness. There is a common sense arising from the uniformities of experience of similarly constituted beings in similar circumstances which corrects the vagaries of the individual, who may have some peculiarity of constitution or be affected by some peculiarity of circumstance. Were all people on earth compounded, framed and constituted exactly alike, and placed in exactly the same circumstances, they would, freewill notwithstanding, all feel exactly alike, think exactly alike, act exactly alike; it is in fact what they do now in respect of matters in which they are most nearly alike—their sexual relations, to wit. Similarly constituted mentally and having a similar experience, they must of necessity arrive at certain common truths; just as, their bodies being what they are, they are bound to develop certain common bodily movements. Scientific truths are no more than truths which any man of sound intelligence who had the adequate special experience and training could not help reaching, if he set himself to work in the proper quarter. The sciences are the developments of common sense in special directions.

A logical inference, the perception of a general law, a mathematical demonstration, the certainty of an arithmetical calculation, the confidence of each daily action among men and things, the understanding of another's language and the certainty that mine in turn will be understood:—all these appeal, as it were, to some certainty in me which is more than myself. It is the common mind of the race in me, which belongs to me as one of my kind—the common sense of mankind, if you will. Because the *kind* is in me and I am a living element of it, I cannot help consciously or unconsciously appealing to and silently acknowledging its rules and sanctions. There is no rule to distinguish between true and false but the common judgment of mankind, no rule to distinguish between virtue and vice but the common feeling

of mankind. Wherefore the truth of one age is the fable of the next, the virtue of one epoch or nation the vice of another epoch or nation, and the individual whose judgment is deranged has his private truth-standard that is utterly false. Common sense, which embodies that which is common in the experiences of multitudes of different individuals—that in them which is generic and essential, as distinguished from the incidental and passing—is therefore more sensible than any individual in all cases, save in the exceptional case of a pre-eminently gifted person of genius who has a special insight and is in advance of his age; to his level must common sense slowly rise by a gradual development of such more special sensibilities and reactions as he possesses. But even in that rare case the superiority is in some special direction of thought and action rather than a general pre-eminence; it does not embrace the relations of mankind all round, so that it remains a true saying that no one has so much sense as the common sense of mankind.

It has been the custom to make a mighty deal of the difference between instinct and reason, the inclination always being, from a desire to exalt reason, to put a wider gap between them than actually exists. In regard to that matter I shall take leave to make two propositions by way of raising the low and bringing down the high—first, that logic is just as mechanical as instinct; and, secondly, that instinct is virtually the stereotyped common sense of the species. It is impossible for any human being of properly developed understanding who comprehends distinctly the premises of a simple syllogism to avoid arriving at the plain logical conclusion; he is compelled to it by as fatal a necessity as any animal is to obey its instinct; all the liberty of his reason, if it be sound reason, is to obey that necessity. Is there any instinct more mechanical than that? In the lower animals their few simple wants, determining a few simple relations, with the external world, are met by certain fixed habits or so-called instincts of action, and they necessarily make no mistake so long as the external relations are not changed; their instincts represent the

generalised and capitalised experiences of the kind in adaptation to those relations; they are, as it were, the embodied common sense arising from the uniformities of experience of similarly constituted beings in similar circumstances. In some of the highest animals these primitive wants and desires are also the centres of a few simple ideas and volitions which revolve round them, and, aiding in their gratification, are supplements to them; but being very simple in character for the most part, and of the same degree of development in the individuals of the same species, the actions which they lead to are pretty uniform in the same circumstances; it is only when a change of circumstances makes a demand upon the animal's powers of adaptation that we observe decided proofs of their existence. In man the uniformities of belief and conduct are far less, since multitudes of elements enter into complex reasonings, judgments and volitions; and, as these differ in different persons according to differences of constitution, temper, age, experience, circumstances of life and the like, issue in results that are necessarily various, uncertain, seemingly capricious, and free; for when there are as many judgments and wills concerning an object as there are individuals to judge and will—of which only one in the end can be right—the opinion may well arise that they indicate self-determination. It is not, however, that they are really undetermined, but it is that the determination is contingent, and not therefore to be predicted. The prerogative which man has over animals to err, is the mark of his larger and freer capacity to receive and to respond to impressions from the external world; the superiority lies not in the mistakes which he makes but in the power which he has to make them, that power being the correlative of the power and inclination which he has to make more special and complex adaptations. While inequalities of intelligence therefore make inequalities of judgments and acts in all complex cases, there is in plain judgments concerning simple cases an absence of mistakes, a uniformity of general agreement that is hardly less mechanical and authoritative than instinct. So would it be also in the more complex cases if we had all the elements of the problem and

their exact relations to one another as clearly in view. A man might as well, from a consciousness of power in himself, think to elude the law of gravitation in his actions, as, from any seeming self-sufficient intuition of consciousness, imagine he can in his thought dispense with the common experience of the race.

If the foregoing reflections be well founded, they warrant these conclusions; first, that the deliverance of consciousness, whether the state thereof be stirred by internal or external causes, is just as immediate in the one case as in the other, and neither state has an exclusive prerogative or even a pre-eminence of dignity and authority over the other; and, secondly, that the interpretation of the value of the direct deliverance is in both cases a matter of observation and experience, not an instance of direct intuition—in the one case by the co-operating aids of the different senses, as the result of the unity of the bodily organism, and in the other case by the co-operating aids of the deliverances of self-consciousness in other persons, as the result of the unity of the social organism. We invoke that common store of sense, feeling, opinion which results from the social union of men similarly constituted and working together in a common medium by common methods to common ends, and which, incorporate in language, laws, customs, habits, institutions, envelopes and penetrates them like a social atmosphere from the first hour of life to the last. To descant upon the self-sufficiency of an individual's self-consciousness is hardly more reasonable than it would be to descant upon the self-sufficiency of a single sense. The authority of direct personal intuition is the authority of the lunatic's direct intuition that he is the Messiah; the vagaries of whose mad thoughts notoriously cannot be rectified until he can be got to abandon his isolating self-sufficiency and to place confidence in the assurances and acts of others.

May we not justly say of the individual that he is bathed in a social atmosphere which he breathes and is nourished by mentally, just as each individual element of bodily tissue is bathed in a fluid medium poured round it from the blood?

And as the blood is a highly manufactured fluid which has its place and function intermediate between the living element within and the aliment supplied from without the body ; so the social atmosphere is a highly compound and, as it were, humanity-manufactured medium that is intermediate between the individual and direct personal relations with the external world. Without its social atmosphere, its sustenance and support, a mind could no more live and breathe than an element of tissue could live without its nutritive medium : the feeling of solidarity pervades the individual, as his blood circulates, unconsciously, vitalising him as a social being. Let the social medium undergo disintegration, as it does in catastrophes like the French Revolution, and what a terrible spectacle of violent distrust, insane suspicions, unreasoning hatreds, fearful brutalities, crimes, frenzies and horrors does man present ! Without its support he falls into mental convulsions, as the body, drained of its blood, falls into physical convulsions.

It will not be amiss by way of summary to set forth one final reflection before ending this section. It is the obvious reflection that everything which we know is a synthesis of subject and object, the outcome of subject *plus* object ; and, therefore, every phase of consciousness being that, directly or remotely, neither *matter-in-itself* nor *mind-in-itself* are words that have any meaning. The consciousness of the *ego* is itself phenomenal, a relation ; and if so, a relation of what ? It matters not what you call the synthesis—subject and object, mind and matter, or what not—it is the only knowable ; the absolutely unknowable is object without subject and subject without object. The hypothesis of an external world is a good working hypothesis within all human experience, but to ask whether the external world exists apart from all human experience is about as sensible a question as to ask whether the shadow belongs to the sun or to the man's body ; for what an extraordinarily perverse and futile ingenuity it palpably is to attempt to think anything outside human consciousness, and what a signal absurdity to apply any terms of human experience to what is not within human experience ! To say there is an absolute and to call it the

unknowable, is it a whit more philosophical than it would be for a bluebottle fly to call its extra-relational the unbuzzable? It is true that we can speak, and in some sort think, of mind and matter separately, as we think, or think we think, separately of inside and outside, circumference and centre, but we cannot divorce them in fact. The divorce is a philosophical fiction. If any one insists on making a divorce in theory which is impossible in fact, he may build up a theoretical system of philosophy, laying it down as a foundation-principle of such philosophy that it is impossible to conceive the passage from the one to the other—whereby happily also it is saved from a tragical collision with facts—but it is a philosophy of words at the end of all. Having defined matter as that which is multiple, divisible, and occupies space, and having then defined mind by as exact a negation of these qualities as he can make—that is, as something that is simple, indivisible, and does not occupy space, he may ask prettily and triumphantly how can that which has extension act upon that which has not extension? Therein he is very much like a professor of moral philosophy who, having defined light as the absence of darkness, and darkness as the absence of light, should go on to ask his admiring pupil to set forth the relations between these two fundamental existences. Beginning with two contradictory and mutually exclusive definitions, it is somewhat gratuitous and superfluous to vex oneself by inquiring how they can be brought into any sort of accord. From that standpoint the idealism of Berkeley is assuredly unanswerable; nay, perhaps the welcome and truly logical outcome of it would be Leibnitz's theory of two clocks going and striking together by a divinely pre-established harmony.

A separation of subject and object cannot ever be the starting-point of a philosophy that is not a self-foolery. The simplest, primitive, irreducible affection of consciousness which we call feeling is not really the simple thing it appears inwardly, but actually a very compound effect. There is a necessary order of events antecedent to it: a stimulus to a nerve of sense, a conduction of energy to the brain, a particular change of a part of the brain in consequence,

and thereupon or therewith an inseparably consequent or coincident state of consciousness; nor could all the consciousnesses in the world ever have a sensation of the meanest sort without these physical antecedents, immediate or remote. Neither the cerebral change nor the coincident state of consciousness can be described as pure object or pure subject; both represent object *plus* subject, either immediately as direct experience, or intermediately through the registration of past experience; and the notion that consciousness can come into any relation with the object directly and purely, or with the subject directly and purely, is revealed as a manifest absurdity.

It was a very natural rebellion which the common sense of mankind made against the Berkleian doctrine that matter had no existence save in the idea which we have of it, when the accepted opinion of an idea was that it was the pure affection of an essentially separate and independent internal entity called mind, having no affinity with matter, and the separate affections of which had no causal connection with the cerebral reactions to objects, no relation with them but that of an arbitrary parallel concomitancy. It was the instinctive rebellion of consciousness against a suicidal doctrine that would rob it of half its being. For the idea is truly a synthesis, the *ego* and *non-ego* necessary correlates; and not to think the existence of the not-self is as impossible as to think the non-existence of self—indeed, to think the existence of one without the other is unachievable. The belief of them, like all other beliefs, may be brought back by analysis in the last resort to the simple basis of a reflex or sensori-motor process; the receptive or passive side thereof furnishing the basis of the *ego*, the reactive or active side the basis of the *non-ego*. That is the physiological unit of mental function. Why is it that the primary properties of matter always seem to be more objective than its so-called secondary properties? It is because, being more gross and palpable, we perceive more plainly the causes of our affections by them, can react upon these palpable causes by fitting movements, and so, grasping them physically, apprehend them better mentally. The recoil of these

movements upon consciousness through the channels of muscular sense—the backrush, as it were, of their *formal* sensibilities whereby they become particular motor intuitions—must needs be a different kind of consciousness from that which is stirred through any one of the external senses, except in those cases in which similar muscular adaptations take place, as is notably the case in trained vision and less notably, but not less certainly, so in every discrimination of sense. That special mode of consciousness will be what we call consciousness of resistance or object-consciousness. It is to touch and its motor adaptations primarily, to sight and its motor adaptations secondarily, but to motor adaptations in all cases, as Maine de Biran pointed out long ago,¹ that we owe mainly, or entirely, our conception of the *non-ego*. Is there a single state of definite consciousness into which a motor element does not, explicitly or implicitly, enter? And if not, how manifestly absurd it is seen to be to talk of the *ego* as if it had existence or meaning apart from the *non-ego*!

That the physiological unit of which mental structure is built up is a reflex act, is a statement, objectively reached, that accords well with what self-consciousness teaches are the simple and irreducible facts of psychology—namely, sensation and the sense of reaction; which last is, in other words, the sense of effort or resistance. Now these irreducible feelings are the conscious expressions of deeper unconscious facts—namely, of definite susceptibility to impressions and definite reaction thereto, which are common properties of all organic matter. It is the superaddition or accompaniment of consciousness that makes them sensation and effort; and with it comes necessarily at the same time the desire to ensue pleasant and to eschew painful impressions. Were it not to digress too much, it would be interesting to trace the physiological unit of a simple reflex act through a succession of its multiplying associations, and to exhibit its corresponding outcomes in complicating processes of belief and will. For if we inquire closely what a belief in its ultimate basis is we shall find it to be the conscious representative of an organised complex reflex act.

¹ Following in this, as it appears, an earlier inquirer. See *Revue Philosophique*, October 1882.

My belief is really my open or tacit conviction that on the occasion of certain definite impressions upon my senses I shall be able to react in relation to them by certain definite and fitting adaptations. It might be described as habit, or rather habit in the formation, as habit might be called unconscious belief; for it is formed, just as habit is formed, by the repetition of impressions and of the fitting reactions to them, until a definite function is fixed. We are restless and dissatisfied, *in doubt*, until we have formed the habit or belief, because doubt is an active state of attempt to make the fitting adjustment, belief a quiet state of accomplished adjustment. Infuse passion into it from the depths of the organic life, and you get passionate belief. One needs not really for one's comfort a true belief, whatever that may be; all that is required is a belief that one believes to be true. Belief is not a fixed but a fluent state, though its motion sometimes, like that of a great glacier, may be so slow as to be perceptible only in a reach of years. Individuals advance or retrograde from one belief to another, as mankind advance or retrograde from one system of belief to another; for ideas and doctrines being mortal, like all things human, grow, decay, and die. To *do* in his place in life is the proper function of man, the true end of thought and belief; the meaning at the bottom of belief is what habit of action it produces; action therefore is the test of clear meaning in a belief. To know the truth it is necessary to do the truth; and to know what a man's real beliefs are you must study his conduct. We rightly seek the meaning of the abstract in the concrete because we cannot *act* in relation to the abstract, which is only a representative sign; we must give it a concrete form in order to make it a clear and distinct idea; until we have done so we don't know that we really believe, only believe that we believe it. A truth is best certified to be a truth when we live it and have ceased to talk about it.

Consider well, then, what a multitude of elements any belief implies; not elements only that have contributed to its formation and become integrant parts of its structure, but those also that co-operate silently in its function. Con-

consciousness is signally incompetent to give a satisfactory account of them, since they mostly belong to the domain of infra-sensibility, and only a few rise into sensibility and intelligence. Oftentimes we invoke studiously two or three conscious arguments for a belief, and are content with them, whereas they are perhaps the least part of its true basis, which is actually a great multitude of inferences and analogies that have combined in mental synthesis below the threshold of consciousness; the tide of them, as it were, breaking into consciousness with a force and in a direction that differ greatly according to varying bodily states, states of memory, present circumstances, and the like. How often does it happen that a person believes and decides, on the occasion of some pleasant impression that is utterly unrelated to the matter in hand, or of a happy sense of bodily comfort, something which he never would have believed and decided had no such pleasant impression been made, and which he would perhaps have believed and decided otherwise if, instead thereof, an unpleasant impression had been made! From the depths of our being reinforcing and opposing forces come into action continually to urge and to check, without our being in the least aware of their nature and operation.

Is it not a little remarkable that the purest of pure idealists shows virtually the greatest distrust of consciousness at the very moment when he exalts its authority to infallibility? In maintaining that all which we know positively and immediately, all that we are indisputably sure of, are its subjective states, he actually declares that the very positive revelation of an external world which it makes us, including therein all other human beings and their consciousnesses, may be pure illusion. Now it is quite certain that everybody feels as sure of the reality of the external object, illusion though it be, as he does of the reality of himself, the subject, that he has as positive an intuition of the one as he has of the other; wherefore it is plain that consciousness is deceiving him, if not as to the existence of an external world, at any rate as to the value of its testimony in any case, forasmuch as it testifies to the object quite as

positively as it does to the subject. If, then, it speaks with as strong certitude when it is saying what may be false as it does when it is telling the truth, how are we to know when to trust its assurances?

Suppose a number of dreamers to be going through the same dream-drama at the same time; able to communicate with one another by a subtle sympathy, so as to know that they were all witnessing the same dream-events in the same order; and never awaking to find it was a dream;—they would certainly believe in the objective existence of their subjective experiences. May not that be life? And the true question be not what the external world is, but how we are delusively thinking it? After all, the world which we apprehend when we are awake may have as little resemblance, proportion, or relation to the external world of which we can have no manner of apprehension through our senses, as the dream-world has to the world with which our senses make us acquainted; nay, perhaps less, since there is some resemblance in the latter case and there may be none whatever in the former. Our dreams are founded on the experience of our senses in waking life; the supposed dreamers of the same dream never could have dreamed it had they not been awake at one time, and so obtained through similar sense-experiences the material and the forms of perception which served them in the dream. Clever in invention as the dreamer is, he never dreams the ultra-relational—the external world as it is outside his relations to it, in itself. But the external world as it is in itself may not be in the least like what we conceive it through our forms of perception and modes of thought; no prior experience of it has ever been so much as possible; and therefore the analogy of the dreamer is altogether defective in that respect.

The analogy is not, however, without instructive application to the external world, not as it is in itself, but as we know it; which is the question now. Is there such external world? We may suppose, I think, that mankind, like the dreamer, never could have constructed the illusion of a world outside it, without having acquired the material and form of

the illusion in real experience: the conception of external illusion would be impossible without the conception of an external not-illusion; to speak of an illusion of sense is to imply necessarily a prior real experience of sense in the race or in the individual; otherwise the word illusion would have no meaning, and could not ever have been formed. Were common sense suffered to intrude into such high matters, it would probably conclude that men never could have constructed ideally the external world in the same fashion all the world over, had they not had long and patient experience of it, first, preconsciously, then dimly consciously, then through all degrees of brightening consciousness from its dawn up to clear noontide. Is not the dream of it, if dream it be, founded on that basis of antecedent experience? Organic matter means by its very nature an involution of the external, as will be set forth more at length hereafter; and between human thought and the external world there lies all the experience-involuted organic matter from its simplest protoplasmic speck up to its highest evolution in the nervous system of man. The worth of the testimony of consciousness as to an external world, then, may well be greater than the worth of its subjective testimony, since it is pretty certain that the consciousnesses of other persons, and the consciousnesses of animals, in so far as they are similarly constituted, give the same kind of evidence.

What the world may appear to the sensations of a creature whose organisation is not in the least like mine, is quite another matter. The external world which the oyster perceives or feels is assuredly an external world entirely other than that which I perceive. But its poor perception—if it gets so far—and its answering reactions are relations of its self or *ego* to a real external; one which I perceive to be around it, far outside the range of its relations, as I, whom it perceives not in the least, am myself. It is a useful incidental lesson for me, who may learn from it how much is outside my perception and what monstrous absurdity, on my part, it is to make any proposition concerning it. The only noumenon which either oyster or I know is the noumenon that is in the phenomena; it is impossible

either of us should know anything except as it is manifested and is felt or thought, not in itself, but in us. I don't want to think the *thing-in-itself*, but I want to think it *in me*: if it is *out of me*, it does not exist for me—cannot possibly be more than a nonsensical word in any expression of me; and for me to think it out of me, as it is in itself, would be annihilation of myself. Now it is plain that the world which I perceive, but which the oyster perceives not, has an existence outside the oyster's consciousness, whether that existence and the oyster itself be real external existences or, as some might argue, only subjective existences within me. If the latter be so, then it is possible that I, in like manner, may exist only in the consciousness of a being as much above me as I am above the oyster. In any case, however, it is quite clear that I and my consciousness exist outside the oyster's consciousness, even if the oyster exist only in me; that there is a real world of that sort external to the oyster or to my special oyster-consciousness, since in no case is the latter co-extensive with my consciousness.

By like reasoning I feel compelled to admit the existence of a real world external to me, whether it be a world of supreme consciousness or a world of supreme substance. Indeed, is it not the fact that every other person's consciousness is a real existence external to me? Will the most extreme idealist undertake consistently to maintain that the consciousness of Newton had no real existence outside the consciousness of the servant who blacked his boots? Where, then, do we come to? If there be a world of consciousness external to me, and if the only reality be in consciousness, then my real existence to another person is in his consciousness—that is, external to myself; and his real existence to me in like manner in my consciousness—that is, external to him. But where does he get his consciousness of me, seeing that he can't get at my consciousness, which is the only real me; and where do I get consciousness of him, seeing that I can't get at his consciousness? He has got my real existence in him, and I have got his real existence in me; notwithstanding that we have not the least power of getting at one another's con-

sciousnesses, which are the only realities. All which is a triumph of philosophy or a *reductio ad absurdum*, according to the light in which one elects to view it.

One might pursue a similar argument with regard to freewill. I am free to myself, as thing-in-itself, says philosophy, not free to others as phenomenal objects which they observe, study, determine and calculate upon; as another person is free to himself, as thing-in-itself, but not free to me who observe, study, determine, and calculate upon him. His freedom then being to me and to all other persons phenomenal, that is to say, being in all practical relations, in every expression of it, a case of determination, and my freedom having the same aspect to him and to all other persons, my freedom has no real existence in any consciousness outside my own; it cannot therefore be counted upon, or even admitted, by others in the events of life, and if not a pure illusion of my own, is, being not ever apparent, as good as a non-existent, except so far as the belief or illusion of it may be of subjective use to me.

Discussions of the kind are struck with an eternal barrenness, because they are based on the notion of a self that has being *apart* from external nature, instead of a self that has being only as a *part* of it: they are little better than discussions about the contents of consciousness when beforehand its contents have been emptied out of it. Self and the world do not exist apart, and cannot be thought apart; and it would be just as true, if not more true, to say that it is the not-self, not the self, which alone has real existence, as it is to say that the world exists only in the abstract consciousness with which, by a self-beguiling trick, psychologists invest each individual. Consciousness testifies to the not-self with as good evidence as to the self, since there is no consciousness apart from a particular state thereof, and each such state, whether it be a mode of simple sensation or of complex will, is a *synthesis* of the two. It is the custom of the psychologist—who would persuade you that he can discover and expound the machinery and working of the clock by watching the pointer, or at any rate can set forth an ideal machinery that is more real than the real one

—to affirm authoritatively that he knows immediately his own consciousness, implying or asserting that he does not know the external world immediately; but to say that he knows his consciousness is nonsense, since it is the consciousness that is the knowing, and to say that *he* is conscious is to suppose an *ego* prior to consciousness. What he knows or is conscious of in any case are the contents of consciousness; and they are neither more nor less immediate or intermediate in one case than in another.

Seeing that every act of consciousness is a synthesis of *ego* and *non-ego*, and that without a *non-ego* there could not be any consciousness at all in me, is it not perfectly legitimate to say that I know the external world immediately, and have as good testimony to it as I have to myself? And none the less legitimate, if you assume the *ego* to be the contents of consciousness of which alone you are supposed to get immediate knowledge by it; for the *ego* without the *non-ego* is impossible in fact and meaningless in thought, and the abstraction of the *ego* from the bodily organisation and the intuition of itself by itself as a non-bodily entity is an artificial and deceptive process. To any affection whatever of consciousness a prior state of brain is essential; and to say so much as that is to involve the external world in every act of consciousness, since it is by involution of the external that the structure of the mental organisation has been framed. All which, if true, clearly leaves no place where the will may get the self-sufficing nature which the theory of its freedom demands. Certainly no absurdity can be greater than those are guilty of who, accepting the external world as illusion, fly for a reality to a self-evolving universal and absolute Will in nature, the evidence of which must needs be just as illusive. 'Tis but another instance of the relative pleased to dupe itself with the conceit of having got beyond its relativity by merely enlarging its relative conception.

SECTION IV.

THE POSITIVE ASSURANCE OF CONSCIOUSNESS.

WITHOUT doubt there are many persons who will say that they care not a jot for these vain and empty disquisitions concerning the authority of consciousness, being positively sure of one thing: that on a particular occasion every one has the power to choose and decide between two actions, as, for example, to turn this way or that, or to move this foot or that, when he has no motive to do the one act rather than the other; and that he can at any moment make the experiment to test and prove this. He has no shadow of doubt that he possesses that freedom of acting.

So far good; but let it be noted, in the first place, that he is by the nature of the supposed problem under the compulsion of motive to choose to do the one or the other; that the extent of determination is very great, and the extent of freedom very small, being the narrowest freedom only within the limits of determination: in the second place, that he could not choose to do the one or the other, could not resolve to move hand or foot as required, except for the power of definitely willing either act, which he has gained by previous training and practice; the particular freedom resting upon that consolidated basis of antecedent determinations; his whole nature, inherited and acquired, lying in its executive capacity as means and instrument between motive and act: in the third place, that he has selected for experiment a seemingly completely indifferent instance—one in which it is not of the smallest consequence which way the decision goes; in which therefore the motive that causes the descent of the one scale of the oscillating balance must be of the lightest kind possible, hardly more than the shadow of a motive, not so much as presumably appreciable. Is it great wonder that he fails to apprehend it? He thinks perchance after some vacillation that he will turn to the left, and then, just as he is on the point of doing so, he determines, out of the caprice to show his freedom, to turn to the right, bring-

ing into operation that motive. Anyhow the area of undetermined will has, by the conditions of the problem, by the antecedent conditions of the power to will at all in the matter, and by the exceeding lightness of the motive needed, been brought to a more than microscopic minuteness.

For as to the determination: it is plain that, in order to try the matter, he has made a general determination to do one of two things, the one or the other of which *must* ensue from the continuance of the act of determination once started; secondly, that he has determined to leave the final decision to the last moment and to the last then intervening impulse or accident, insomuch that, so far from deliberately choosing and willing it, he cuts himself off from the opportunity and power of doing so: he leaves, in fact, to accident the particular diversion of action by which his general determination to do *this or that* becomes the particular determination to do *this*. It is as if a person, rolling a stone down a steep declivity, which, once the impulse is given to it, he knows must go with gathering force to the bottom, were undetermined on which side of a given mark, the narrowest visible, it should go, determined only that it should go as near the mark as possible on the one side or the other. His act of determination, once started, continues in force, and necessitates a particular result; but what the result shall be is not the act of his choice or will, but the effect of some chance-collision which the stone makes in its descent, or of the accidental bias which all unawares he has given to it in the initial throw. Then as to the exceeding smallness, the intangibility, so to speak, of the impulse or incident which determines the particular result in the fore-supposed case of oscillating will: it is not thought anywise strange that there are objects too small to be seen except by the highest power of the microscope, or even to be seen by any power thereof; nor is it the least doubtful that intensely active molecules imperceptible to sense, veritably extra-sensual, are the foundation of the properties of all visible matter; it surely then is not a matter of the smallest wonder that in those physico-mental functions, which of all the operations in nature known to us are the finest and most subtile, there are agencies so fine, so

little material, as to be inapprehensible in themselves and known only by their effects.

Where there is nearly an equilibrium of vice in a character a little virtue goes a long way, but where there is a perfect equilibrium of choice there can be no decision. It was Bonnet, I believe, who made the supposition that if a soul independent of the body were placed between two objects exactly alike, or which appeared so, two desires of exactly equal weight and quality, it would rest in equilibrium, since there could be nothing to incline it to the one or to the other: it would realise in itself the ideal position of perfect freedom, being a will so free from motive as to be incompetent to move, so exempt from determination that it could not determine. For what could determine it the one way or the other? Not the objects, since they are exactly alike. Not desire, since there could be no desire to one or the other; or if to one, then equally to the other. Not a caprice of liberty, since there is nothing to stir caprice in so pure and refined an immaterial substance placed exactly in the centre of indifference; the very notion of caprice involving necessarily the simultaneous notion of not-caprice or motive, which is excluded by the statement of the conditions of the problem. But let this soul be united to a body, it is then indifferent no longer, for it is subject every moment to numberless impressions, of various degrees and kinds, streaming into it from every part of the divers structures of the complex and *individual* whole; some of them more, others less, sensible to consciousness, many of them insensible. Then it is impossible for it to be indifferent. But because its tone is thus affected intimately and deeply by impressions which it is unconscious of, it is ignorant that it is moved by any pressure, and believes itself to be acting indifferently.

Assuredly the brain is not to be conceived rightly as a soft and inert substance, quiet in the molecules as in the mass, but far otherwise: as the seat of countless multitudes of molecular tremors that are in relation with every part of the body, repelling and attracting one another, reinforcing and neutralising, uniting into complex and separating into

simpler harmonies; and it is the sum or outcome of the whole of these intimate, intricate, and impalpable intestine motions which appears in the illumination of consciousness. It is a little strange perhaps that it has not occurred to some one, reflecting how imperfectly our gross conceptions of matter cover the infinitely minute and subtile elements of matter that minister to mental functions, to propound the theory of a special ether pervading the brain, if not the universe, more subtile even than the space-pervading luminiferous ether, and to call it the mentiferous ether.

In the previously supposed case of the individual in a state of as great indifference as possible, in a state consequently which the least impulse was capable of disturbing, if he did not act from a caprice of showing his freedom by doing the opposite of what his first thought was to do, but acted without thinking or caring in the least what he did, without any conscious motive, he certainly acted from the inclination of his present nature; the required little turn between the two paths, one of which he must take, being given probably by some insensible bodily impulse. Do you ask by what impulse? By one or another of a thousand possible bodily impulses: perhaps by an artery of one side of the body going more directly to the brain, or having a fuller stream of blood in it, than the corresponding artery on the other side; perhaps by a slight difference in temperature between one nerve-centre and another; perhaps by the insensible impression of some visceral organ upon the brain, or by one of many other similar conceivable causes. The shades that wander forlorn in the realms of Tartarus, being well-nigh rid of their bodies, are they therefore more free than we who are heavily encumbered with the trammels of them? Alas! they have perhaps discovered that in losing their bodies they have lost the very sources of will, and now feel it their eternal misery to wander eternally will-less. It happens frequently, in a matter about which we find it difficult to choose or decide, that we know not in the least what determination we shall come to until we actually come to it; then perhaps we are at a loss to know what determined us, and either remain puzzled and uncertain, or

are not satisfied until we have thought out some motive which, though it had little or nothing to do with the result, we are happy to persuade ourselves was the actuating one.

It may be assumed that pure intelligence or pure reason could not determine action at all, since such purity would be the extinction of desire, perfect repose, a passionless peace of mind; the fundamental spring of action, through whatever complex developments of sentiment it may go, is the desire to gain pleasure and to shun pain—that is to say, the impulse to maintain and increase life. The conflict between two issues in the mind is not a conflict really between reason and desire, intelligence and passion, as simple opposing forces, the mighty intelligence of a man like Bacon being notoriously powerless to overcome one of the meanest passions of human nature, but a conflict between desire and desire; the counterpull of the one against the other not being for the most part a single desire, but the resultant of a complex interaction of desires in that which we call *deliberation* or reason. May we not say of passion that it is distributed through the whole body, and of reason that it is confined to the supreme centres of the brain, because it is in them that the desires fight out their battles, and by the struggle which they make for existence attain and maintain an equilibrium? What number of conflicting or modifying sentiments shall go into the opposite scales of the balance in deliberation, and in what forms, gross or refined, they shall show themselves, will depend partly upon the native capacity of the mind, its natural heritages and aptitudes, and partly upon the degree and character of its development. In the young child and in the savage, present desire passes instantly into action, because it is not confronted by opposing desires derived from past experience and laid by in the mind, ready to be kindled into restraining or modifying activity; in the man of large and much meditative understanding, desire may be so neutralised by the many desires brought into deliberation as that resolution is ‘sicklied o’er with the pale cast of thought,’ and action paralysed. You shall sometimes see a man whose powerful reason has grasped all the relations, weighed

all the circumstances, and forecasted all the issues of events exactly, fixed nevertheless in hesitating impotence to act, because he is in the hapless plight of having no inferior powers to execute the decrees of judgment.

If one wished to present an instance of a supposed and seeming operation of cool intelligence untinctured by desire, and to observe it in its deep actual relation to the natural passions of human nature, one might be tempted to select the appreciation of some purely scientific theory. Here, surely, there is no necessity for the elimination of personal prejudice, no mixture of passion to prevent a clear and sincere apprehension of it, no room for envy, no cloud of feeling to dim the white light of the understanding, nothing but a calm and pure love of truth! Alas! this is an ideal vision. Self-love is at work as a powerful factor; it operates so deeply, intimately, and unconsciously that the intellect cannot act freely even with the best intentions, feeling its backward pull when it goes against it, its forward push when it goes with it. A clear and cold love of truth, a passionless serenity of reason, will not withstand it. Reason must be beguiled, or bribed, or ruled, without knowing it. In the best case one must oppose to it an enthusiasm for truth, which is truly passion into which self-love has been cleverly enticed, and so transformed as no longer to know itself. Now when we get to the depths of self-love in the attempt to fathom motives we strike upon those yet unexplored strata of the constituents of mind that are contributed by the organic life.

Let me go on now to supplement the foregoing example of motives in apparent equilibrium by the presentation of another example, in which the scales are very unequally weighted, and deliberation therefore is a very swift affair: an infant on the verge of toddling over a precipice and a humane person standing by with the power to interpose and save it. There is no balancing of motives then. Theoretically, the man has the choice of two courses—to do or not to do anything; but practically the will is constrained to such instant action one way, by the sudden unloosing of human sympathies in him on the touch of the fit occasion,

that it has not the least power to incline to the opposite course. His act of rescue is instant and instinctive, no less essentially, though more circuitously, reflex than the quick movement which he would make to save himself, were he himself on the point of falling over the precipice. Where, then, is the freedom of his will? All its freedom lies in the power to do what it is constrained to do, as all liberty is the liberty that a thing free from constraint has to obey the necessity of its nature. Were sufficient time given for reflection, there would be the opportunity of choosing the course of not stirring a step to save the child; but could the humane man choose it? We should not blame a dog which made no movement in like circumstances, because it has not the social nature in its mental constitution, and the occasion therefore unlocks no inward forces in it; but if any human being did so, his conduct would, by the universal consent of mankind, be pronounced most extraordinary and unaccountable, and stigmatised as unnatural and inhuman; people would find it impossible to conceive the motive which could have actuated him. Were he to assign the freedom of the will as a sufficient explanation, consistently claiming for himself a freedom of will to think and feel as well as to act, he would be thought to add an insult to the understanding of mankind to the outrage against its humanity. If he assigned as a good reason his conviction that the deaths of a great many children would be truly a blessing, inasmuch as there are far too many alive for whom to hope even a moderately happy existence, and still people go on begetting them recklessly, as they would take a pinch of snuff, without the smallest regard to anything but their own momentary gratification, he would be execrated as an inhuman monster, though all that he said might be soberly true. Were he to protest that he had not been actuated by any motive, his assertion would be scouted with scorn, for it would be assumed that the very singularity of his conduct implied a very extraordinary motive. Madmen are the only persons who are allowed to act without motives, or at any rate without such motives as commend themselves to, and can be counted on by, sane persons. With the latter the

necessity of motives to actuate the will, either as first agent in the series of processes that issue in it, or as one of the antecedents starting into clearer consciousness than the rest, is such that when they are not educed nor supplied by the occasion, and the decision hangs accordingly in suspense, recourse is had sometimes to lots or chance in order thus to obtain anyhow the preponderance of motive to act upon the will. I never yet heard of anybody who maintained that a penny showed freewill, because, when it was tossed into the air, he could not predict whether it would fall heads or tails uppermost. Everybody knows that it will fall with the one face or the other uppermost; that the result, whatever it be, is a necessity, though a contingency; and that it would be no contingency, but foreseen as a certainty, if the size, shape and structure of the coin, the exact quality, measure, and direction of the force used in tossing it, and all the external conditions, were formulated in the proper complex problem, and that were worked out accurately.

Between the two extreme instances adduced—the one, of vacillating irresolution in which reasons are balanced so evenly that the shadow of a motive suffices to turn the oscillating scale; the other, of instant determination where a moment's deliberation is excluded—a multitude of instances might be brought forward to illustrate every step of a gradational transition from the one to the other. One instance more may suffice here: that of two persons placed in circumstances of temptation as nearly alike as possible, who act quite differently; two men passionately in love and in intimate intercourse with the objects of their affection, the one of whom yields recklessly to the temptation of seduction, while the other does not. Will any one soberly maintain that these persons had the same strength of passion, the same power of choice, the same freedom of will? Or can any one suppose seriously that the virtuous person was not actuated by strong motives of prudence or conscience in his successful stand against the urgent temptation? The will, —or preferring facts to phrases, let us say the man—was not less determined in the one case than in the other; in the one his freedom was in doing, in the other it was in not

doing, but in both it was in acting according to the motives which urged him—that is to say, in not being vicious when his will was virtuously motivated, and in not being virtuous when it was viciously motivated. Character and motives being what they were, the virtuous man was not free to be vicious, nor the vicious man free to be virtuous. It is not likely that any one would care to question or dispute this in the particular case, especially if, in order to make the example stronger, we suppose the vicious man to have been little higher than an idiot, and the virtuous man little lower than an angel; he may like better to suppose the case of a person who has succumbed to temptation on one occasion, but who withstands it on another similar occasion. Herein he sees proof that he might have resisted successfully on the first occasion.

But there is no such proof. What is proved is that the person has done differently when he and the circumstances, although very nearly, were not quite, the same. It is not possible to have a recurrence of the same, or to suppose the recurrence of exactly similar, circumstances to the same person, and so to test the will's freedom by the demonstration of its power to act differently in them; the circumstances and events are necessarily different on the second occasion; they are a recurrence—that is, the occurrence of circumstances as exactly similar as possible *plus* the experience of the first occasion. That difference in the antecedents suffices to make the difference in the consequence. On both occasions the individual does that which pleases him best *at the moment*, choosing, if he chooses ill, the semblance of good; for he and the occasions are different. Moreover, without the superadded antecedent made by the precedent experience, there might easily be manifold differences in the antecedent and constituent elements of the volition, imperceptible or unperceived either by himself or by others. His passion may have had less force by reason of different physiological conditions of which he was unconscious; his reflection may have had a little freer play because of the mitigation of his passion; the susceptibility of sense, or the rate of conduction in nerve-fibres, may have

been a little lowered by a lower temperature of them, or by other causes, so that the message came ever so little later, or with ever so little less urgency.¹ His mistress may have said or done some trivial thing which stirred ever so little revulsion of feeling at the critical moment; a look, a gesture, a whiff of odour, a tone of her voice may have struck and diverted his attention at the instant, or have been a discordant jar in the tension of his high-strung feeling and produced a revulsion thereof; some seemingly small thing in him or in her, impinging on one sense or other and affecting the organic tone, would be enough to make the circumstances and the result different. And in every nature the mood or feeling is a deeper fact than the thoughts and fancies, and has a greater influence upon thought and conduct. Reflect how slight an impression—the glance of a woman, or the tone of her voice—moves a man to the depths of his being, thrilling through every fibre of him; and moves him in that way at one time, when his body is in a certain physiological tone, while it has no effect at another time and in another state of body. Hâs it not happened sometimes, in an interview with another person, that we have said what we had resolved beforehand not to say, or have not said what we had resolved beforehand to say; not from anything said by him directly to provoke or to check the utterance, but because a tone of voice, a gesture, a shade of expression, something, however little—we know not perhaps what—vibrating through the inmost mental recesses, has sufficed to loosen a spring or to repress one? A sensation that is so slight as seemingly to be petty and indifferent will assuredly act sometimes in a far-reaching and surprising way to excite or to inhibit.

The same individual in the same circumstances or acted

¹ When a stimulus acts upon a nerve, there is an appreciable period between the application of the stimulus and the nerve's response to it, which period of 'latent stimulation' is known physiologically as the 'excitatory stage.' This period is measurably longer when the temperature of the nerve is lowered, and during it the nerve is insusceptible to stimulus. In like manner the rate of conduction in a nerve is lowered by a low temperature. And does not cold benumb thought and freeze passion? It is not likely that Newton would have thought out the law of gravitation had he lived near the North Pole.

upon by the same motives—is a conception which an ideal philosophy possessed of an omniscience of self will alone dare to entertain ; since a philosophy which took an account of the complex facts could never hope to comprehend and appraise the individual in that exact way. An accidental and passing occasion shall bring back distinctly into sudden illumination, without a perceptible connection, some remote event which otherwise we should have forgotten forever. It was there, though we knew it not, but where? And if somewhere in our inmost being, not dead but sleeping, latent but not patent, when we know not of its existence, how estimate its influence by any self-inspection or psychological intuition? It happens to us frequently to recollect a particular conversation or event in the remote past because it made a deep impression upon us at the time, and yet to forget numberless other impressions that really exercised a more deep and lasting influence while we thought not of them. Consider, for example, the very positive effects on character that are produced insensibly by the circumstances of the particular circle of society in which we live ; we are not aware of the modification which we undergo ; but if we enter a new social circle, or return to an old one, it is revealed to us, by the instant pleasures or aversions which we feel, how gradually and silently our character has been modified. Perhaps we have longed to go back to a former manner of life which is surrounded in memory with a halo of enjoyment, during several years spent in another and quite different sort of life, eagerly promising ourselves the renewal of former delights ; but how sadly and sometimes ludicrously disappointing is the experiment, if we make it ! We discover with dismay that our feelings and judgments are different ; that we are entirely changed, though we knew it not ; that our self-inspection has completely failed us, and our self-consciousness completely deluded us ; and we hasten to escape from the scenes that we had so ardently longed to revisit and from the experiences that we had hoped to repeat. Growing to his modes of impression and exercise, as in his subordinate motor so in his higher mental functions, the individual feels as little at

home in an old circle which he thus re-enters as he does when he returns to practise a difficult exercise of bodily skill that he had relinquished for years.

It is impossible for any one who has not made a diligent study of the physiology of the body to appreciate the many and various influences which continually work upon the mind, and the divers subtle ways, direct and indirect, in which they work, to determine its moods, feelings, and impulses—to trace back to their origin the roots of the factors that go to make motives and to discover the intricate, circuitous, and far-reaching inhibitions and impulsions, the weakenings and invigorations, to which they are exposed both in formation and function. He apprehends only that which is within the light of consciousness, whereas these are outside it, below its threshold, insensible, a complex composition of intricate forces that is known only or mainly in the result. It is probable that a study of the light-bearing experiments and discoveries of Claude Bernard respecting the functions of the sympathetic system of nerves and the intimate phenomena of life, might yield him more insight into that matter than all the disquisitions of philosophers can ever do; at any rate, without such adequate conception of facts, as the foundation of his enterprise, he is ill furnished to make a fruitful study of mental functions, and well fitted to continue in barren and futile discussions.

Is it not an inexhaustible wonder that any one should think to divorce mind-functions from the body to which they are inseparably united, should deal with them as the properties of an abstraction called a non-bodily self, and should maintain that they may be studied adequately from a purely internal station? A singular philosophy, indeed, which aspires to measure and appraise impulses of will springing out of the passion of sexual love, without giving the least thought to the existence of sexual organs and the essential influence which they and their differing states exercise in determining, not only the very quality of sensibility, but the specific nature and strength of the passion and of its motor outcomes! It would be curious to see explained from the moral data of pure psychology the changes of mood and the

violent outbreaks of temper that occur in an elephant, hitherto invariably good and gentle, after it has undergone the physical changes of puberty ; or to observe what place religion, poetry, and morality had in the pure and abstract mental philosophy of a sexually emasculated mankind. The metaphysical psychologist—who for a long time maintained that all men had naturally equal capacities of intelligence, the inequalities of their actual understandings being ascribed to differences of culture on their part, and who still maintains for the most part that all men are equally capable of good naturally, and might be equally good actually if they so willed it—would be content to imagine the stomach, liver, or heart of one person transplanted into the body of another person in the place of its own organs, in the confident assurance that it would make no difference in his character ; or, perhaps, to imagine the brain of one new-born infant taken out and put into the skull of another, in the full conviction that ancestral heritages would not hinder the one from being just as good, and doing just as well, as the other.

In reality the psychologist would be much nearer the truth were he to assert a difference in mind in every case, human or animal, in which he observed a difference of body. Could one imagine the paws of a lion fixed to the ends of the legs of a sheep in the place of its own feet, we should justly look for a correlative change of character in the sheep ; not at once, if the organic transplantation were a recent experiment, because some time must elapse for the foot to obtain its proper representation in the sheep's brain ; but when in full time the innermost and the outermost had been brought into accord, the brain into correlation with the foot, then the sheep's character would certainly be mightily changed. The animal would not be converted into a lion, it is true, because it is the *whole* organisation of the lion, not a part only, that makes its ferocious character, and it is the brain which expresses it, as containing in innermost representation and in due co-ordination all the characters of the outermost ; but the sheep would be no longer a sheep, its character would be entirely changed ; it would, in fact, be a new animal, morally as well as physically.

It were much to be wished that the philosophers of the study would consider frankly and loyally the instance of a weak and timid animal whose urgent instinct is to save itself from its natural enemies by instant flight, but which, when it has young ones, faces its dreaded enemy and engages in a desperate and absurdly hopeless battle in their defence. It assuredly does not stay to reason either when it flies or when it fights; for in either case it acts in obedience to its predominant impulse or instinct. But how has this very remarkable transformation of nature been brought about? By maternal affection obviously; out of which feeling has sprung the impulse that preponderates over its strong natural impulse to save itself by flight. In the one case it perceives intensely—feels vividly rather than perceives definitely perhaps—its enemy and nothing else, its consciousness being concentrated in the perception, feeling and action associated with that vividly active nerve-centre, and other consciousnesses being inhibited; in the other case, it perceives or feels intensely its young and their danger, its consciousness being concentrated in that group of perceptions, feeling and conduct, and other consciousnesses being inhibited. Like one in an ecstasy, or like a hypnotic person, it is absorbed in a circumscribed psychical activity, the rest of its mind being inactive. There is no conscious reasoning in the matter, no advised action, no deliberate determination of will, nothing more than different feeling and different action springing instantly from changed bodily conditions. It is an organic machine that is put into the two different frantic actions by two different springs. Is there any mental philosophy which can give the least explanation of the new motives that occasion so new and brave a will, one too which is so entirely alien from the ordinary timid nature of the creature? Philosophy has been in face of the fact since its own birth unto now without getting any further than the discovery that it acts from *instinct*—that is to say, that it acts so because it is *in* it to do so. Is it any better mental philosophy which, ignoring the not less powerful bodily causes that affect man's moods of will, discusses them as qualities of pure abstractions? To have any understanding

in the matter we must substitute for the metaphysical notion of a mental unity the physiological conception of a confederation of nerve-centres, that are severally in intimate relation with the various organs and specialised functions of the body, and endeavour by patient observation and experiment to find out and to set forth the special correlations between the distant parts and the innermost nerve-centres.

It is as easy as it is puerile and profitless to prove the undetermined nature of an energy by excluding arbitrarily from the problem all consideration of the most important determining conditions, as those necessarily do who begin by enforcing the adequacy of a method of introspective inquiry which cannot possibly take account of them, and by rejecting the method of inquiry which alone can give an account of them. It is to carry the pleasant comedy a little further to put an abstraction in the place of these excluded real energies, and to invoke its agency as an all-sufficient explanation; thus, as always, the apt word being made to do duty for the lacking idea. The particular volition is an act of, or caused by, the will; the will is not caused by anything but itself; the former we may observe and deal with practically, as we do with other forms of energy, the latter is supernatural and known only by intuition: all the changing volitions of daily life, bettering or worsening as we advance in years, strong in health and weak in sickness, infantile in the child and imbecile in idiocy, inspired in the man of genius and common-place in common-place people, brutally vigorous in some practical men and weak and impulsive in most women, always fluctuating, never exactly the same, in quality and energy in the same individual; all these are caused by *the* will; they vary infinitely in power and quality, but it changes not in its essence; they acknowledge time, place, and conditions, but it is serene above time, place, and conditions. Why meanwhile they should change so much in the individual when they have an unchanging cause does not clearly appear. If it be perchance owing to the imperfections and the varying states of the instruments or organs through which they are constrained to manifest themselves, then one cannot well see how its subjection to imperfect

instruments can fail to weigh heavily upon the freedom of the will in all the manifestations of its energy, or what advantage it is to have a freewill which cannot ever manifest itself freely ; or how we contrive entirely to escape from the entangling fetters of the inadequate instrument when we get the self-conscious intuition of its absolute freedom.

SECTION V.

THE PHYSICAL BASIS OF CONSCIOUS IDENTITY.

THERE is hardly any one to be met with now-a-days who holds strictly and consistently to the belief that mind can work in the exercise of its function without a brain, at any rate in this world. While making this general concession, however, many people do actually in their inmost minds, if not in outward declaration, make reservation or exception of the particular functions of will ; or rather perhaps, as with many persons is not unusual, believe vaguely the general proposition and the particular contradiction at the same time, without acknowledging or even perceiving any inconsistency in themselves. Some of them, if they were pressed closely to answer definitely and lucidly concerning a matter which they prefer to leave hazy and indefinite, might admit that the power of choosing, in which lies the freedom of will, goes along with some sort of cerebral action, antecedent, contemporaneous, or instantly sequent. That knowledge is not got by introspection ; for consciousness, which cannot even tell us that we have a brain, is certainly not capable of making known the different brain-changes that go along with its manifold affections. If *emotio mentis* means *commotio cerebri*, as we have the best reason to believe it does, the emotion itself does not give the least hint of the cerebral agitation, though other bodily disturbances do. From the commotion of feeling itself we could not derive the smallest suspicion of a subjacent molecular explosion.

The odd thing is that from this admitted incompetence of consciousness to testify concerning what it is not its function to observe, we are required to draw the nowise legitimate conclusion of its essential independence of brain. Instead of drawing what seems the sober and natural conclusion that consciousness has no authority to declare whether its states are the consequences of brain-states or not—as they clearly may be for anything it has to say one way or the other in the matter—we are to see in its ignorance the absolute certitude that they are not; not otherwise than as if we were asked to accept from a man without smell the testimony that a rose was scentless, or to be satisfied with the evidence of a person who should declare that the rose had no smell because he could not see its perfume, or protest that it was not red because he could not smell its colour. As the inquirer tests the authority of the man without smell by comparing it with the testimonies of other persons who can smell, and so proves the failure to be not in the rose but in him; and as he tests the evidence or want of evidence of one sense by comparing it with the evidence of other senses; so he should test the authority of introspective consciousness by comparing it with the evidence of those other methods of observation which have convinced him that he has a brain and that changes in it move parallel with changes of consciousness. It may come to pass in the process of time that these intimate and hidden workings of the brain shall be watched from without, and their exact correspondences with changes of thought and feeling noted, and they perhaps measured by some exceeding delicate psychometer; but even when that has come to pass, if it ever do—when that which appeals now secretly to consciousness is then known openly to sense—consciousness will still be as far as ever from giving the least hint of them. That fact will not be superadded testimony to its independence of matter and to its spiritual sufficiency; it will only add to the strength of the proof of its incompetence as a witness in the matter.

Let it be granted, for the sake of the argument, that consciousness is in some unknown way the direct effect of intimate cerebral action, one could not then logically expect

it to reveal and declare by *direct intuition* the material energy that caused it. For what else would that be but to demand that consciousness should in the moment of intuition be itself and its molecular antecedents—the effect and the cause at one and the same instant? Consciousness lives only in the instant and cannot go back in direct intuition to its most proximate antecedent; and to go back to its material antecedent would be to go back to that which is not it, but its cause. Like a muscular contraction, which is a series of shocks or waves following one another so rapidly as to appear continuous, consciousness is a series of instants of consciousness so rapid as to seem continuous. Its failure to testify in that matter is no more proof of its independence of material cause than the failure of an individual's self-consciousness to reveal to him that his self is anywise dependent upon a grandfather is proof that he could ever have come into being without a grandfather. Already it has been shown that the first obscure sentiment that any one experiences, the most primitive manifestation of his consciousness, whatever that be, presupposes in the constitutional structure of his body all humanity that has gone before: does self-consciousness tell him aught of that momentous experience or even give the smallest hint of it?

When we experience a state of consciousness that we are not able to refer to an exciting cause, as we refer the sensation of sound to the external body, we invent a faculty as the cause of it; for example, when we feel an emotion, we are conscious of no material cause of it, and we accordingly imagine an emotional faculty as part of the furniture of mind, as we in like manner refer an outcoming volition to a faculty of will. All the while there are perhaps sufficient physical antecedents of the emotion and will in the states of the internal organs of the body that are hidden from us; but having no perceptions of these organic affections, we please ourselves with the mental faculties which we create and put in their places. There is no one who does not think a smell or a taste to be more essentially subjective, more intimately mental, than a sight or sound, because its cause is less gross and palpable, more subtle and latent; indeed,

so seemingly objective are the latter senses that had we possessed them only, and no higher mental life than the sensations which they furnish, it may be questioned whether we should ever have felt the need of inventing a spiritual mind at all. We know well now, however, that taste and smell are not more specially mental than sight and sound, because we have convinced ourselves by more exact observations and larger experience that the sensations have their objective causes in the properties of special material substances. There remains to be done a like useful service for emotion and will: a service not to be successfully done for a long time to come—first, because they are rooted in the organic life, the intimate, intricate, and manifold affections of which, and their essential relations with cerebral functions, are hardly known at all; secondly, because the conditions of emotional sensibility in the brain, the different categories or forms of human feeling and will, represent the structuralised experiences of an indefinitely long line of ancestors; and, thirdly, because in accordance with that fact their natural stimuli are social, in any and every emotion the energies of a complex social involution in structure being unlocked by the fitting social stimulus. As we now perceive plainly that the uniformities of our notions of the external world are due to the uniform operations of our senses, so when we have attained to an accurate and exact knowledge of the material substrata of thought, feeling, and will, we shall perceive plainly that the uniformities of our feelings and passions are due to the uniform operations of the internal organs of the body upon the historically structuralised brain.

Meanwhile, the immediately urgent business of the serious and practical student of mind is to betake himself diligently to an earnest study of the body, in order to get clear and distinct conceptions of what it is organically, and what it can do and does habitually as an organic machine without extraneous help. Let him be as metaphysically minded as he will, his proper course is to undertake this pre-essential enterprise, postponing to its thorough accomplishment the more aspiring studies of those things that are

assumed to be beyond the capacities of physical agencies. Proceeding in that way to the study of the body with frank and open mind, he perceives that it is a physiological unity; that the essential principle of its being and function is a principle of individuation; that it is in fact unit and individual, an *ego*. It is the most perfect example in nature of an intimate and essential correlation of manifold diverse parts working together in the unity of the whole. There is no need then to rush to the conclusion that in the self-consciousness of the *ego* he has an intuitive revelation which excludes the possibility of a physical basis, lest haply he should otherwise be left without resource for his belief in the *ego*. He perceives next that the physiological unity, although changing its particles day by day and continually taking new developments in new circumstances, keeps its identity as long as it lives; unlike as it may be at fifty years of age that which it was at five years of age, it is yet at fifty the development of that which it was at five, and bears in its nature ineffaceable traces of its sufferings and doings at that early period. It represents a principle of continuity or filiation, whereby the present is a development of the past, and not of the past of the individual only, but of the past of the kind; for he is not merely one, but one with his kind, co-member with others of a common social body and all members one of another. Why, then, the hot haste to ascribe the consciousness of continuity to an intuition of identity which excludes the possibility of a physical basis and necessitates the instant appeal to an immaterial entity? Self-consciousness shows itself in a bad way here; for, isolating the individual mind as it needs must by its method, it breaks actual continuity with the past, yields no explanation of the inborn lines of thought and feeling, and shuts out all opening for any such inquiry. Were its method sufficient, the individual would have to be studied as a thing apart, having no connection with the past, no portion in the future; but as he does not thus stand apart in nature, but has a part in it, we may without exaggeration say that the more self-sufficient it is as a method, the more inefficient it necessarily is.

Are not, in truth, the individual's conscious memories of his affections and acts far less complete and stable than the organism's registered memories of its affections and acts? The former are transient and may be effaced, the latter are fixed and well-nigh ineffaceable. If identity had no better foundation than conscious memory, there is no one who would not lose continuous consciousness of it before he was thirty years old. Who in ripe manhood could persuade himself that he was the same self as when he was a little child, were his self-consciousness the only witness? To recall to mind my sentiments, inclinations, and opinions at different epochs of life—so far as that is possible—remembering how well they pleased me at the time, and, comparing them with my present very different sentiments and inclinations, to reflect how ill they would please me now, must be to convince me that my present self is more unlike my former self than different persons are unlike each other; indeed, to imagine myself confronted with myself at each of these different epochs would be to be confronted with so many individuals with whom I had little or no sympathy, nay perhaps to be actually affronted by them if they made a claim of near relationship; and in the end I must needs feel very much obliged to my body for enabling me to preserve the conviction of my identity. I am only sure that I am myself by going back in memory through the succession of experiences which it has had in different situations and circumstances, and by linking together its pursuits, fortunes, and adventures. The consequence is that when I return after many years to visit a place in which a considerable part of my life was spent, I cannot realise how I felt and acted there, and can hardly realise that I ever lived there; the piece of history seems to want reality, to be very much like a dream; and the reason is that I am so much changed and that my changed identity cannot identify itself with the unchanged identity of the place. I am dependent really upon my memory of events and circumstances, and I go back to the past scene therefore, not with the direct and vivid certainty of an intuitive consciousness, but with the dim and discontinuous consciousness with which I go back to a dream. Disease may sweep clean away my

consciousness of identity, notwithstanding that, though changed, *I* still am.

If any one chooses to assure me that not a single particle of my body is what it was thirty years ago, and that its form has entirely changed since then ; that it is absurd therefore to speak of its identity ; and that it is absolutely necessary to suppose it to be inhabited by an immaterial entity which holds fast the personal identity amidst the shifting changes and chances of structure :—I answer him that other people who have known me from my youth upwards, but have not my self-conscious certainty of identity, are nevertheless as much convinced of it as I am, and would be equally sure of it even if, deeming me the greatest liar in the world, they did not believe a word of my subjective testimony ; that they are equally convinced of the personal identities of their dogs and horses whose self-conscious testimony goes for nothing in the matter ; and lastly, that admitting an immaterial substance in me it must be admitted to have gone through so many changes that I am not sure the least immaterial particle of it is what it was thirty years ago ; that with the best intention in the world therefore I see not the least need of, nor get the least benefit from, the assumed and seemingly superfluous entity. It might indeed be right to go further, and in turn to assure him that his intuition of identity is really the explicit declaration of its physiological unity and identity which his body makes in consciousness ; and that to attribute to the mere translator the credit and authority of author, to the transcript the authority of the original, is to make a singularly ungrateful return for what he owes to the body.

Those who speak of mind and consciousness as co-extensive and yet not having extension, as their wont is, and treat the notion of unconscious mind as a gross absurdity, should soberly explain where, during a particular conscious state, all the rest of the mind is ; where in fact all that furniture beyond the particular piece then in use is stored. Here is something that does not occupy space, that exists only so far as it is conscious, and which nevertheless on any occasion has not so much as the thousandth part of its being in con-

scious activity. Where is the non-active part of its being? Is it for the time being not in existence because it is not in consciousness? Well might they say with St. Augustine, if they reflected as closely as he did upon the wonders of memory—‘Therefore is the mind too strait to contain itself. And where should that be which containeth not itself? Is it without it, and not within? how then doth it not comprehend itself?’

The abstract notion of a metaphysical identity has paralysed positive observation and occasioned an almost entire neglect of the concrete facts as they bear upon the subject of personal identity; patent as the day, they have been as unseen as the stars when the sun is bright. The entity invoked, there was an end of question and inquiry; even curiosity was unborn and belief unquestioning, as from of old belief has always been most unquestioning in those domains of mystery which inquiry and question might not enter, where they were not even conceived as possible. Recoiling from the danger of intruding upon sacred ground, and from the hardly less deterrent difficulty of resolutely forming clear and definite ideas and expressing them in exact terms and phrases, men have persistently dealt with words instead of things, and with words as things. Had I the constant intuitive feeling of being the same, as I am metaphysically required to have, I should not know that I was the same, any more than a person who lived always in one sensation could know that he had a sensation; for is it not by feeling the changes or differences in myself that I know that I have a foundation of sameness—that I mark a continuity of development?

To say that *memory* has registered the successions of changes so that I am able to recur to them by its means, is not to make the smallest step forward in actual knowledge; it is merely to transform a descriptive name into a faculty, and then to proceed to conjure with it. It is the body which registers the changes in its structure, not any abstract memory-entity, and the recurrence of the activities in it is memory. It is no exaggeration to say that the memory of a series of events is never quite accurate and

never exactly the same on two occasions, for the condition of self at the time of the recurrence in memory tinctures deeply the colours or qualities of the remembrance: the exact and perfect memory it is impossible to have. How deep and far-reaching too these changes of self! When a person minded to write a biography of himself sits down in mature age to describe the events and feelings and circumstances of his childhood, it is a romance, not a history, that he really composes; as he himself plainly perceives if, after he has done his work, he chance to have the opportunity of comparing his story of the sorrows or joys of some important event in his career with a particular record of it written by himself at the time. Inflamed with the fire of youth, the individual walks with head erect, confident and cheerfully defying destiny; sobered and saddened by experience and age, the same individual bows in mind and body under it. Naturally, therefore, is the sentiment of freewill much stronger in youth and vigour than in age and feebleness; for the desire to assert the *self* as against other selves and things, which is the essence of the sentiment, is no other than the self-conservative instinct of life in its highest conscious expression; passionate and confident therefore in youth, more deliberate and diffident in age. Whoso is suffering pain has a less vivid sentiment of freewill than he has when he is enjoying pleasure, for in the one case he is undergoing a repression, in the other case an expansion, of self. See, again, how great a transformation of the *ego* is produced by the oppression of disease! He whose brain is exhausted by overwork becomes impatient, irritable, acrid, and above all things wishful for rest. At the same time, his tastes, sentiments, judgments, and volitions are changed: he takes no pleasure in that which formerly and ordinarily gave him pleasure; is critical, captious, and full of offence; has no confidence in his own judgments, which it is a pain to him to form, and well-nigh an impossibility to express; feels no animation of hope or aim, and is destitute alike of energy to wish or will. His friends who know him well, seeing that he is no longer himself, make allowance for him, not minding what he says when he speaks bitterly to them; and he himself, when he

recovers from his prostration, looks back in shame and amazement on the transformed being that he was.

The *ego* is not a constant but a variable. It represents the aggregate of sensations clearly or obscurely felt at any given moment, whether springing from the original constitution or from the acquired nature and habits of the organism; these sensations themselves representing the sum of silent multitudes of activities that are going on below the threshold of consciousness, and which, albeit unperceived and unfelt immediately, vibrate subtilely in the most intimate and intricate interactions of organic depths, and in the result affect deeply the *tone* of consciousness. One may take leave to doubt whether the holiest saint could preserve in his devotion the most serene and sacred tone of spiritual feeling, if one or two of his disordered viscera were propagating actively a succession of discordant vibrations to their representative territories in the brain, or whether the most subtile and exalted intuition of consciousness into the mysteries of the inner being could triumph over the discordant jars of a deranged liver. When the aggregate of vibrations that are distinctly above the threshold of consciousness is in harmony with the whole of the multitudinous vibrations at and below the threshold—when the strings, so to speak, of all the instruments of the orchestra, both of the players in sight and of the players out of sight, are in unison—then the *ego* is whole, complete, harmonious. On the other hand, when that is not so, when the illumined energies are not in harmony with the unillumined energies, the present state with the character, or when some especial discord prevails in the orchestra, then the *ego* is incomplete, partial, discordant; the individual not at one with himself. Introspection itself, had it been thorough and faithful, might have opened this field of inquiry, but here again the all-sufficient abstract *ego* stood like a forbidding angel in the way of patient and plodding inquiry, and precluded all fruitful study of the nature and affections of the real *ego*.

It is a favourite axiom of the metaphysician that the *ego* has not extension and is not divisible, its definition being made out of blank negations of these positive qualities;

but it is an axiom which after all is confronted, if not confuted, by evidence which goes far to show, if we examine it fairly, that the *ego* has extension and is divisible. Here, indeed, may be noted a very pretty inconsistency on his part: while telling us that space is essentially a form of thought, innate in the *ego*, he assures us in the same breath that the *ego* has not extension; in other words, that which has not extension thinks extension by virtue of its innate form. Meanwhile may it not actually be because the *ego* has extension that it can and does think space in every act of consciousness—in every thought and feeling, as well as in every perception—and that, as will be seen later, it is capable of disintegration by disease? Another consideration: Those who protest so much that mind has not extension, would do well to explain clearly whether every sensation, as such, is not a function of pure consciousness. It is impossible for them seriously to dispute it. But it is certain that every sensation takes place through an extended part of the body, and though not itself material, is quantitative and qualitative; that it must have that foundation in extension, and be felt somewhere in definite, even measurable degree, and of definite quality. Here, then, we have mind in its capacity of sensation taking on the qualities of extension. Lastly, let us consider this: That the moment an individual has said to himself *I*—whether as *I* feel, or as *I* think, or *I* am—he has enunciated his own limitation. The very consciousness of the *ego* is the betrayal of its limitation in time and space, and the proof of its extension; for it is impossible for him to say *I* without positing a *non-ego* from which he is defined by limitation. So it turns out that the fundamental fact of consciousness is itself the most absolute declaration that the *ego* has extension. Certainly, if that be so, it will not lessen the trouble of comprehending how the finite, having form and occupying space, can declare itself to be made in the image of the Infinite, which is without form and does not occupy space.

Our introspective psychologist of the study, who speculates at his ease about an abstract will that has only a notional existence, which accommodates itself pliantly to his

needs and moods of thought; meddling not with the various, far from readily conforming, concrete volitions that are the real existences with which practical psychologists and men of the world have to do; cannot ever be brought to apprehend adequately the divers insensible conditions of body that make themselves felt as essential elements in the feelings, judgments and volitions of the individual. Could he do so, he would not fail to perceive that suicide and self-sacrifice are equally instances of a person's doing that which pleases him at the time; that which, being most *agreeable* to or *agreeing* most with the then inclinations of his nature, seems to him best to choose. 'Did ever any one,' asks Bishop Butler, 'act otherwise than as he pleased?'¹ On different occasions I have talked freely and argued vainly with persons who, entertaining the notion of suicide, have subsequently carried it into effect, some of them having gone through a vast amount of previous suffering in their struggles to withstand the deep inclinations of their natures; and I have not seen reason to entertain the least doubt that, in yielding obedience thereto, they acted otherwise than as they pleased. You will say perhaps that they were mad and not therefore to be reckoned valid and useful instances. To that I answer that, even if they were mad, they were not on that account outside the range of a philosophy whose stern concern is with the solidities of facts: secondly, that, so far from being mad, some of them were as calm, cool and rational as any one I ever talked with; too rational in fact, having too great a preponderance of intellect over desire to live happily in illusion: lastly, that those of them who were mad afforded by their disorder the best proofs of the determination of the likings and volitions by bodily causes.

In the full strength of buoyant health and bodily energy a person delights in active exercise, even when he has no other purpose in the exercise than the expenditure of energy; he is sure he is making a free choice, because he is doing that which his organisation prompts most strongly and has most pleasure in. What more repugnant to him then, more saddening, than the thoughts of inactivity and death? But why

¹ In his second sermon on 'Human Nature.'

is he not disquieted and sad because he cannot fly, which would plainly be the freest and best exercise if he could take it? Indeed, we may well imagine the eagle, as it wings its swift way high in the heavens, and discerns with piercing eye, itself invisible to them, the little creatures creeping painfully about on the ground far below it, being struck with a wondering pity for them, or with pitying wonder that they can have a sufficient sense of pleasure to go on living in so sadly maimed a way. Man's body not having been so constituted as to enable him to fly does not inspire his mind with the desire to fly, and accordingly he envies not the eagle, nor ever thinks his freedom of will thwarted because he cannot choose or will to fly. Nor does he disquiet himself in vain because he has not a third eye at the back of his head, although he would manifestly see a great deal more of the world if he had it. In all things, great and small, his desires and volitions bear the impress and limitations of his bodily structure and state, just as do the desires and volitions of each kind of animal. The tiger would not wish and will to tear with tooth and claw, if tooth and claw were not constituent parts of it: the feline structure of body, animal or human, bespeaks a feline nature of mind.

In the feebleness and decrepitude of age, in the hour of mortal sickness, in the shadow of approaching death, how repugnant the notion of activity! How little repugnant, nay how welcome oftentimes, the idea of death! Leave me at peace, let me rest, is the instinctive cry, the prayer of the expiring powers. As the bodily hold on life relaxes with the failure of the energies of the tissues, the mental hold is loosened also, until the near extinction of life is the extinction of all desire to live. A man has never so little appetite for immortality as when he is just putting off mortality. The horror of death is not the horror of the dying man in fear of his own annihilation, but the horror of the living friends around him at his annihilation for them; who, moreover, being themselves in full life and vigour, revolt instinctively against the repugnant notion of ceasing to be. Nothing is more remarkable than the complete indifference to life commonly evinced at the near approach of death;

nothing more hard to conceive in the full vigour of life than the possibility of ever being indifferent to it. The judgment of the *ego* in each case is the bodily judgment.

It is the first duty of the sincere student of mind to emancipate himself from the bad theological fashion of despising the body, and to endeavour to gain and hold just conceptions of its admirable structure and functions. There is mighty little nobility in the spectacle of a soul scorning its earthly tenement as long as it is united to it, and clinging to it with a miserable tenacity, desperately unwilling to leave it, when the time comes for the inevitable separation. Let him cease to be blind to himself and to things as they are, and keen-eyed to see himself as he is not, and he will then put his mind into that open and candid disposition in which he will be able to apprehend things truly as they are and to reason rightly of them. Before all things let him undertake a frank and searching inquiry into what the body can do by itself, giving to purely reflex acts and instinct their natural interpretations; that is to say, not reading the higher into the lower, consciousness into reflex function or mind into instinct, still less making of instinct some mysterious, quasi-divine impulse, but drawing from the phenomena of instinct and reflex action the simple and natural physical lesson of what the body can do, since that is what they do prove; not seeking the first blind and tentative efforts of an immaterial substance in the operations of matter, but discovering in the functions of highly organised matter the beginning of those phenomena of intelligent adaptation which, in their highest conscious expressions, are thought to necessitate the hypothesis of an immaterial agency. He may then perceive that instinct is misread and perhaps undervalued in some of its manifestations, and that intelligence is habitually overvalued in its essential signification.

Two errors are in common vogue in regard to instinct: first, that it never errs; secondly, that it never adapts itself to changed circumstances. In reality it does both; on the one hand, it errs when in changed circumstances, not changing to them, it performs old acts that are obsolete, and, on the other hand, it does sometimes make imperfect

and tentative adaptations to changed circumstances. As regards intelligence too, it is quite certain that nine-tenths of a man's daily acts that were originally intelligent and now seem voluntary are not really voluntary, but automatic. The same complex mechanism is used for their performance, whether it be put in action by a command of the will or by a stimulus of another sort, as we observe when any one shuts his eyes voluntarily, and at another time shuts them in voluntarily on the occasion of a local irritation or of a threatening gesture, and in a thousand similar examples; and therefore it is that such actions are habitually and tacitly supposed to be voluntary by one who, observing them, thinks of himself as an essentially conscious being. Meanwhile, after they have become thoroughly fixed and habitual they are not voluntary; the will is not required even to start them; the least excitation will do that; the difficulty indeed sometimes is to prevent them, the will being called upon to do so and perhaps failing.

Here then are actions precisely alike in complex and purposive nature; we call them instinctive or reflex, and pronounce them to be bodily, when we know not that conscious intelligence has preceded them in the order of development; we think them something quite different, and ascribe them to an immaterial entity, when we have watched the process of conscious adaptation that has gone before them. What they really prove is this—and it is the right lesson to be learnt from them—that the so-called intelligent design and execution of an act neither implies the existence of a pre-designing consciousness nor requires the intervention of any extra-physical agency in the individual organism; that they are examples of what the body can do by itself in virtue of its constitution as a complex organic mechanism. The unconscious is the fundamental and active element, the conscious the concomitant and indicative; and the aim of true scientific inquiry must be to find out and set forth how much is essential, and how much or how little the incidental has for its part in the functions; not to seek for the origin of the operations of matter in any form of consciousness, with which *they* can notably dispense, but rather to seek for

the origin of consciousness in the highest operations of matter, with which *it* notably cannot dispense. At any rate this axiom should sink deep and be held fast in the mind—that the purposive nature of an act does not involve of necessity a pre-designing consciousness; that matter does not get purpose from consciousness, whether or not it be that consciousness gets it from matter.

Suppose that the inquirer who proceeds in this fashion ends by ascribing to matter all the grandeur and glories of mind: has he really affected in the least the moral meaning of his own nature? He has glorified and aggrandised the functions of matter, and they in the end are just as mysterious and incomprehensible to him as mind. If he is honest with himself he cannot help confessing that any conception of spirit which he entertains is either an indefinite negation of matter, and therefore no actual conception at all, or really the conception of an exceedingly subtilised matter. A fundamental postulate he must have, whether it be molecule or mind; and it is a question of words rather than of things whether he chooses to spiritualise matter or to materialise mind. He recoils from a material conception, however refined, though it is in the order of all his other conceptions of nature, and clings to an indefinite spiritual conception, mainly because of an instinctive aversion to lose his conscious individuality; for in the full energy of conscious life he cannot bring himself to realise the possibility of its extinction with the death of the body. Nor does the revolting and humiliating spectacle of the corruption of the body after its death, as it undergoes the process of decomposition into simple elements, tend in any way to lessen that hindrance to a successful glorification of matter. Meanwhile, there are not wanting persons in different parts of the earth—in the enlightened as well as in the dark places thereof—the destruction of whose individualities he can contemplate with easy serenity, as there are doubtless many persons who in their turn can contemplate with equanimity the future destruction of his individuality.

SECTION VI.

CONCLUDING REFLECTIONS.

THE foregoing exposition of some of the faults and fallacies in the foundations of the metaphysical doctrine of freewill ought, if itself sound, to prove that they are nowise so sound and surely laid in the testimony of consciousness as it has been assumed and asserted they are. In fact self-consciousness seems especially adapted to deceive us in that matter, both in respect of that which it omits to tell us and in respect of that which it does urgently tell us. As already explained, its capital omission is that it illumines directly the results, but does not illumine directly the causes, whence the natural illusion of an undetermined will; its testimony is the testimony of its present affection, which, however, actually is the outcome of all the preceding affections of consciousness experienced by the individual and his forefathers. In that which it does directly tell us, on the other hand, there is a singularly forcible suggestion of independence. For in every voluntary determination there are certainly two elements: the consciousness of an energy or effort, and a distinct feeling of satisfaction in making the effort; which last is probably the expression of the desire to assert self, in accordance with the fundamental instinct of self-conservation.

The consciousness of effort is in truth a fundamental fact of experience; no explanation will ever enable us to get behind it; it springs from the relation of self to the not-self, their opposition and interaction, and is at once the revelation of their difference and identity. In the sense of effort there is involved necessarily a resistance, which is the basis of the belief of the *non-ego*. Were there an entire and perfect fitness of relations between the *ego* and the *non-ego*, a complete certitude in every respect, a full and exact harmony, consciousness would be extinguished. The consciousness of will may be said to mark the incompleteness and uncertainty of the relations. One surmounts

self only by not thinking of self, coalesces with nature by a complete self-surrender to the order thereof. Individuality is a passing severance from the larger life of nature, death-doomed therefore by its nature as a severed part. Could a man bring himself into complete harmony of relations with nature in every respect, mental and bodily, identify himself with it thoroughly, he might be immortal, but in that case he would secure immortality at the cost of individuality.

The second constituent element of volition—namely, the distinct feeling of satisfaction attending it—is well adapted to inspire the individual with the conviction that he has willed and acted with perfect freedom: it is probably the main factor in that illusive consciousness. See how the drunkard, the madman, the passionately jealous or angry man, let his conduct be never so ridiculous, believes himself to be acting with entire freedom so long as his mood or passion lasts; he has at the moment so distinct a feeling of satisfaction in what he does that he never felt more sure of his freedom; but when his passion cools or his mood changes he perceives clearly that, swayed or constrained by it, he was nowise so free as he imagined. His gesticulations and fury were not, as he flattered himself, triumphs of resistance to constraint and proud proofs of his independence, but the jubilant contortions of his passion as it bore him irresistibly along in its current. If an angry man listens at all to the admonitions of prudence and sense addressed to him during the heat of his rage, they serve only to inflame his reckless determination to do as he likes; he rebels against them as impertinent attempts to constrain his freedom, insulting and exulting over them. Let him think of them afterwards when he is calmer and clearer in mind, then he is amazed and perhaps ashamed that he did not suffer them to affect him. But when appeal is made from Philip drunk to Philip sober the appeal is to two different natures with different likings; and it is not legitimate to leave that fact out of sight and to base an argument of freedom of choice on the assumption that the appeal was made to the same natures; for assuredly the actuating inward powers—namely, the force of passion which prevails on one occasion, and the

force of prudence which prevails on the other—are not in the same proportionate strength on the two occasions. The problem of the motive elements of a particular act of will is a problem of the particular state of the individual at the time, not of his state a day or a month before or a day or a month after; not even of his state a few minutes before or after if there has happened meanwhile the pain of a colic, or the torpor of a sated passion, or some other bodily change too mean and trivial for the appreciation of high philosophy, but not too mean and trivial to produce far-reaching effects in the extremely complex, intimately united, and mobile elements of the organism.

In discussing the motivation of will, it is not always sufficiently borne in mind by those who advocate its so-called freedom that the individual is a *whole*, compounded not of a single sentiment or passion but of several sentiments and passions, each of which has its especial object and gratification, and that in doing what pleases him best he may still be doing very differently at different times, according to the particular sentiment or passion that is then uppermost. The strongest desire of one occasion shall not be the strongest desire of another occasion, and yet it may remain true that the will follows the strongest desire. Nothing but interminable disputations, futile and profitless, will come of treating the matter as one of abstract will and abstract desire. In order to be fruitful, the discussion must leave the void of the abstract and fix itself upon the particular will and the particular desire.¹ In fact, though the organism subserves one large end—the welfare of the whole—there are many subsidiary ends included within this main one, each of which has its own desire of, and pleasure in, fulfilment; a special gratification, moreover, which in moderation and due subordination is good in the particular and good for the whole, but in over-indulgence or excess is bad in the particular and for the whole. As many such ends as there are, so many correspondent wills are there; as many as are the dif-

¹ It is not in the multiplication of voluminous systems of psychology, but in the exact scientific exposition of a single well-studied case of *individual* psychology, that the real hope of progress in psychology lies.

ferences in the dignities of these ends, so many are the differences in the qualities or dignities of their several wills.

By the power which a man has of looking before and after he is freed from the necessity of living in the present and of yielding to the immediate impulse, as the infant, the idiot, and the lower animals for the most part do ; in a particular conjunction of circumstances he can look back to other conjunctions of circumstances, or in a particular social medium he can refer back to, and, in referring, realise to some degree, other social mediums experienced by him personally, or known to him historically ; so he, having a historical being, makes the past present, and is able to postpone a present pleasure out of regard to a future gratification of the same kind or of a higher kind. Suppose the case of one who, after some passing thoughts of resistance, yields recklessly to a present temptation of sense in spite of the gravest warnings of reason and in clear foresight of the painful consequences of his indulgence ; with deliberate will he gains his hour of bliss, though he knows he will have to suffer a week of woe afterwards : shall we say of him that he is or is not acting with freewill ? Is he not actually vindicating the freedom of a lower from the coercion of a higher will ? What he does is to resist the attempted coercion of the higher motives that press upon him and to indulge in a reckless freedom of will ; the very sense of defiant freedom which he has in his resistance to, and rebellion against, the constraint of higher motive being the pleasure that actuates him and assures him of it. He prefers the easy freedom of lower will to the constrained freedom of higher will ; in other words, he prefers one to another of a hundred possible wills, all having their several motives of determination, that are in some of a higher, in others of a lower order. But he is not free, says the alarmed moralist, when he yields to the lower motives that lead him down-hill ; he is free only when he obeys the higher motives that lead him upwards, and most free of all when he has made such obedience into the servitude of habit. In that case, his self-consciousness deceives him grossly, for it is certain that it tells him and makes him believe he is as free in the one case as in the

other; and if he be deceived in the one, he may well be deceived in the other also. The moralist who has come to the clear opinion that liberty and supreme reason are one—that always ‘freedom with right reason dwells’—would not do amiss to reflect that, in reality, no constraint is more stern, heavy, and severe than that of reason, which, if dominant, leaves a person no choice between two lines of conduct; he cannot choose, if he understands them, between two mathematical conclusions, one of which is plainly right and the other plainly wrong; cannot choose, wishing to live, whether he should live by taking food or by doing without food. Its command is not a capricious, impulsive, transient domination, the tyranny of an hour, obeyed with more or less pleasure, as that of passion mostly is, but a steady, persistent, grinding despotism, weighing upon the individual with a dull and mechanical pressure, as it were, and enforcing an obedience that is attended by little pleasure. The question of freewill, as commonly stated, is insoluble truly, but insoluble only because it has no meaning when we cease to talk of an abstract notional will and begin to occupy ourselves with the particular volitions.

Little favour will these discussions have, and little will they weigh, with the introspectionist, who in the end does not fail to fall back dogmatically upon the direct intuition of freedom. Always, too, metaphysics is at hand to provide him with abundant arguments to justify the intuition; for its sterile perseverance is like that of the barren womb which never cries ‘Enough.’ As one might say—I know that the sun goes round the heavens by the plain evidence of sense, and arguments to prove the contrary, even though unanswerable, will not shake my faith in that positive testimony; so he will say—I know that my will is free, for I feel it in every volition which I exert, and arguments to prove the contrary, even though unanswerable, will not shake my unswerving faith in the positive testimony of my consciousness. If the answer be made unto him, Be not deceived, it is not the sun which goes round the earth, but the earth which goes round the sun; and in like manner it is not you who are free and nature that is under necessity, but you who are under

necessity and nature that is free;—he will protest that the answer is an absurdity. Nevertheless, it is not; for if there be freedom anywhere, it certainly cannot be in the conscious world of the relative, but must be in the unconscious world of the noumenal. As it was in the beginning so will it be at the end of the argument: he has so great a faith in the intuition of freedom that he will not doubt. Between what he wishes when he is inclined to a favourite sin and his sense of duty to resist the self-gratification he feels that he has a choice; and when he acts from the higher motive he pleases and deludes himself with the notion that he has willed otherwise than as he wished, forgetting that he has after all wished to do his duty. ‘Man always wills to do that which he desires most, when he does not feel himself obliged by the sentiment of duty to do that which he desires less:’ such is the consistent inconsistency of the freewill doctrine, which—to say nothing of the absurdity of making the desire in the sentiment of duty less than the desire which it overcomes—actually represents a *free* man as being *obliged* to do what he would not wish to do, and as rising to higher freedom in proportion as the constraint of duty becomes stronger. To common apprehension does that not sound very like determinism? It must at any rate be deemed a strange example of the emancipation of will from motive, though rightly viewed as an example of emancipation from lower motive. The wishing or willing of an end of any sort is really not consistent with a conception of perfect freedom; it is at once to make an imperfection of it. Even God willing an end would be, as Spinoza said, an incomplete God. A person can be logically free only when there is such a complete equilibrium between sentiments, passions, and reflections that he is in a state of complete indifference; when he is not under the least shadow of constraint to act one way or the other, or to act at all; when therefore he, properly speaking, cannot act at all.

Always in respect of freewill or liberty is it to be rightly borne in mind that the notion of it, whatever its intrinsic value, is helpful against the pressure of a particular passion or motive. The belief of its existence therefore may do real

work in the mind, even though the thing have no existence. In its progress thus far mankind has owed perhaps more to beliefs that have turned out not to be true than to truths that have remained true. The notion of freewill becomes itself, merely as notion, a centre of power in the mind; it gives time for pause and reflection, when it is stimulated to action through the accomplished associations on the required occasions; and if it has happily been thus brought into inhibitive action on many similar occasions, it gains the strength and ease of habit. Here, as elsewhere, the conscious energy of past function becomes the unconscious mechanism of present function, which thereupon is able to work without attention and almost without exertion; will loses its character, so to speak, in attaining to its unconscious perfection; and meanwhile the free, unattached path-seeking consciousness and will, that are, as it were, the pioneers and perfecters of progress, are available to initiate new and to perfect old functions. A passionate person who has by patient watchfulness over himself and by a course of steady perseverance and practice accustomed himself to wear an outward air of calmness and to speak in quiet, measured language when he is inwardly in a towering passion, making thus a clever art of his natural defect—as it is the part of wisdom to do with all natural defects—succeeds in making that regulated discharge of energy the habit of his life, and in the end does it quite easily; so much so that nine out of ten persons who have to do with him imagine him to be a person of singularly calm temperament. To him meanwhile thus practising his clever art well-nigh automatically, there is this advantage—that his consciousness is free to take clear and full account of all the circumstances of the crisis in a rapid reflection upon them, and to grasp the right issue, instead of being swallowed up in the torrent of passion. Here also the lesson does not fail to make itself evident, that such excellence of culture cannot ever be reached by a life of pure self-inspection and mental discipline in the closet; he alone can gain it who is content to gain it by diligent practice among men and things, seeking and using the occasions of exercise—by doing not thinking only, and doing

with and through and for others ; not, indeed, without feeling, but with feeling put into deed rather than into display.

If man must thus patiently manufacture himself to habits of well-doing by the diligent practice of doing well, and on most occasions perceives good habits to be a better security of good conduct than good principles, what becomes of the opinion that freewill is the foundation and fountain of morality? For, next to the supposed direct intuition of freedom, the postulate of its moral necessity is the strongest pillar of the doctrine. If man be not free to do well or ill, how can he be deemed responsible for what he does? Well; perhaps his responsibility is not for doing what he does, being what he is, but for being what he is. Let us inquire a little further into the matter. To deny the freedom of the will, we are told, is to make morality impossible. Of which crisp and confident formula, an opponent might declare that it is no more true than it is true that an acknowledgment of the law of gravitation makes walking impossible ; indeed, might justly perhaps go further and say that moral responsibility could no more coexist *with* freedom of will than a man could walk *without* the law of gravitation. Were any man really free he would be free from responsibility for his character, which he could not then train and fashion ; it is because he is not free, but a product in an order of development, that he is responsible : responsible for the exercise of his reason to establish a mental order. Does not then the recognition of the reign of law in mind actually enlarge and enhance the rational conception of freedom, by bringing home to the individual a sense of responsibility not for what he does only, but in some measure for what he feels and thinks and is? And by bringing home to one generation a stern sense of responsibility for what the next generation shall feel, think, and be? For certainly the circumstances of one generation make much of the fate of the next.

It is hard to see how the notion of responsibility can possibly attach to things that are not linked to one another by the tie of causation, and how without such unfailing tie there could fail to be chaos instead of kosmos in the region of mind. Assuredly the sense of responsi-

bility is not founded on the consciousness of freedom, since it exists in persons who deny positively the validity of such consciousness, and who moreover argue that upon that foundation, even if it be accepted as valid, not responsibility but irresponsibility alone can be based. Rather perhaps ought we to say with Kant that the categorical moral imperative, which inwardly commands us to do duty independently of all external attractions or distractions, imposes the conception of freedom; that liberty is of necessity involved in this conception of obligation; and that we are bound by such implication of moral law to accept the concept, even though but for it we should never have thought of freedom in any department of knowledge. We are to take it in fact as the implicate of a fundamental obligation, instinct in us, to do uprightly; for that is what it actually comes to. It is the law in the heart, the monitor in the bosom, suggesting with urgency, enjoining with power. In other words, having first wrapped up a principle of liberty in our conception of duty, we proceed in due time to unwrap it, and having discovered it where we put it, we can properly declare that it was involved there. On the one hand, then, the freedom of will, as perceived by us in ourselves, is maintained to be the basis of morality; on the other hand, the moral basis is affirmed to involve or to postulate implicitly a freedom which we could not ever have perceived explicitly. To which principle is our homage due?

Without denying the categorical moral imperative, its supposed implication is nowise self-evident, for it may fairly be argued that the obligation no more involves such a conception of liberty as is assumed, than the consciousness of freedom involves morality. It is because mankind has felt dimly and vaguely the inward imperative, because it has been unawares under that constraint, and because it has *not* been free to go its own way, that it has made the progress which it has made from its lower to its higher stages of being. The implicate of the moral imperative is not liberty but constraint. Hence to our surprise we struggle against passions that prompt and please in order to accomplish duties that repel, and are at first almost painful; the lower affini-

ties and attractions of our natures, as in chemical developments, sacrificing themselves to higher affinities, disappearing in the process, and by such sacrifice constituting the higher. Had man been left to follow freely the bent of such freewill as he has he would most likely have gone the way of his passions to an unspeakable degradation, if not to actual destruction. At bottom that which we discern in his moral instinct is the *necessity* of nature operating in the evolution of the highest organic matter and so urging or compelling it into more complex combinations and functions. Since the process is going on continually in chemical combinations, why wonder that a similar process takes place among the several passions to accomplish a moral evolution, and that it gives intimation of itself in feeling?

A positive fact of observation it is that the power of adaptation to surroundings within certain limits, intrinsically and extrinsically fixed, is a property of all living organic matter; and assuredly this property belongs to the highest evolution of matter, as it exists in the exceeding delicate and complex organisation of the human brain, as well as to the simplest particle of living protoplasm. The law of adaptation which we thus discern and trace alike in every instance of organic development and function, we discern and trace also in the accommodation of the individual to his social surroundings and in the consequent modification of his character. Let him cease then to labour to know himself in himself, and let him strive diligently to know himself—as he can only, properly speaking, know himself—in nature; looking not for the source of any absolute criterion of truth or right in himself, where he can never find more than self, but seeking it in the common feeling or instinct derived from the large experience of the race. Humanity, not self, is the true concern of the individual who would rise to a higher self.

Here, then, is made plainly manifest the duty of the individual to place himself in circumstances of action in which his character will be modified for the better—to *do* in order to *be*; the solemn responsibility under which he is to determine rationally in himself, by help of circumstances, that

which may thereby be predetermined in his future conduct, and in some measure in his posterity. If he has no living posterity in whom thus to strive to predetermine a good manner of thinking and feeling, any good work he does which is an instruction, a joy, a help to those who come after him, by awakening them to sympathy with thoughts and hopes and feelings that otherwise they might have heeded not, shall be his posterity. All which it will perhaps be said is true, and can be entirely accepted; but it does not touch the indisputable fact that a person has sometimes by a solemn resolution changed the whole line of conduct of his life immediately. There have been many other moral revolutions like that which converted Saul the persecutor into Paul the apostle. True; but will anybody seriously maintain that the enthusiasm, the moral energy, the fiery character, the strong will, the intellectual power of that apostle were the pure result of his conversion? Do you not find as decisive evidence of his dæmonic character in his epistles and in the events of his apostleship as you find in the energy that he displayed as a persecutor? If a great sinner becomes a great saint, and the greater sinner the greater saint, he draws his inspiration not from the void but from his character, whose energies have happily now got a better direction. Without question, a deep moral agitation produced by a powerful impression and reinforced by habitual recollections, especially when it is swelled by the infection of like emotion in many other persons, will reach below ordinary habits of thought and feeling and stir the inmost elements of character, fusing and welding them into new moulds. But the material must be there, and must be of such quality as to be capable of taking these new forms or moulds. Always must there be something akin within to vibrate in sympathy with the quality of the power without; if not, the latter will pass like wind. No motion will unlock the proper emotion if the latter be not embodied in mental structure. It is a foolish illusion to believe that any one in whose nature is neither sincerity nor uprightness will become upright by undergoing a sudden conversion; if he was essentially unrighteous before, he will be unrighteous still, being only a

hypocrite in addition, consciously or unconsciously ; if sincerely upright now, there was the basis of sincerity and uprightness in him then : he was at least genuine in his evil doings. Moreover, to ensure the permanent utility of the new upheaval of feeling, to establish it in a steady and stable moral growth, the impression that caused it must have been so powerful as to recur ever after to the mind in vivid force, or there must have been a subjection to a succession of impressions of the same kind as it. So will be effected gradually that transformation of nature whereby virtue becomes structural habit and its exercise a pleasure ; and that is the guarantee of its stability and permanence.

It is Pascal who, after pointing out that those who quit the service of God to return to that of the world do so only because they find more pleasure in the world, goes on to say — ‘*de même on ne quitterait jamais les plaisirs du monde pour embrasser la croix de Jésus-Christ, si on ne trouvait plus de douceur dans le mépris, dans la pauvreté, dans le dénuement et dans le rebut des hommes, que dans les délices du péché. Et aussi, comme dit Tertullien, il ne faut pas croire que la vie des Chrétiens soit une vie de tristesse. On ne quitte les plaisirs que pour d’autres plus grands.*’

PART II.

WILL IN ITS PHYSIOLOGICAL, SOCIAL, AND EVOLUTIONAL RELATIONS.

SECTION I.

ITS PHYSIOLOGICAL BASIS.

THOSE who uphold a metaphysical will protest eagerly that there is nothing in the known operations of matter, even when in its most complex organic forms, that is in the least like the energy we are conscious of as will, or can so much as be conceived to be a physical basis of it. They would do well, however, to explain what exact measure of meaning they give to the word *like* when they say so. As it is through self-consciousness that we know the energy which we call will, and as it is through our senses that we know the so-called physical forces, it is plain that we have no right to expect them to be like, as conscious states. The effect which the same object produces upon the different senses that it is capable of affecting is of course in each case a quite different conscious state, being special, unlike anything else, *sui generis*; so much so that an object known well to one sense would be perfectly strange to another sense acting alone—the eye blind to thunder, the ear deaf to lightning. If a person blind from birth obtains sight suddenly by some happy operation of surgery, he does not recognise at all by the eye in the first instance an object that he knows well by touch; and did the two senses not go on afterwards to act together in the apprehension of it, to combine their results in perception, it would always be

a different object to them. Whence springs a not uninteresting reflection: that if the several senses only acted separately, an object would appear to be as many objects as there were senses that it was capable of affecting, and so, with a dozen things around him, a man might believe himself to be living amidst a great many objects and revel in the variety of his existence. Is it not perhaps actually because of the fewness and the limitations of his senses that he believes nature, which is *one*, to be so various as it seems?

The experience of the outer senses then entirely contradicts the notion that the information derived from self-consciousness can be like that given by any of them. The same object—the functioning brain—must necessarily produce a very different impression (if it produce any) upon the internal sense of consciousness from that which it produces upon the senses of an observer: the self-conscious state, that is, could not be in the least like anything that we know of the operations of cerebral matter: no motion of its molecules, gyratory, undulatory, rotatory, nor any combination of such motions that we can imagine, could have any conceivable analogy with a sensation: between them no comprehensible relation can exist, an impassable gulf must remain fixed. All which, put succinctly and plainly, is simply this: no physics of body can possibly be the metaphysics of mind. Certainly it would be strange enough if that which is physical could be at the same time that which is defined to be not physical—that is, beyond physics; that which appeals to outer sense be at the same time that which does not appeal to outer sense. As I have already pointed out, self-consciousness acts alone, without help from association, either with the external senses or with any supplementary internal modes of observation; and it cannot therefore ever identify a common cause of its affections and of the affections of an external sense. But is it thereupon absolutely necessary to conclude that these belong to existences of an entirely opposite nature: the one to a spiritual and the other to a material order of being?

Light and sound, regarded purely as conscious states, are as unlike as can be; there is no relation conceivable

between them in that internal aspect ; nevertheless, they are not really so unrelated and so radically asunder as they seem, since, by going deeper into an examination of their respective natures than unaided sense could do, we have reached a higher plane of knowledge, and from that we perceive them both to be caused by undulations in elastic media and to have remarkable analogies. Is it not the fact indeed that the undulatory theory of light was first suggested by the undulations of sound ? In like manner, the gulf between the conception of the movements of cerebral molecules and the self-consciousness of will-energy may well be due to the different ways of acquiring them ; molecular motion and will be one and the same event seen under different aspects, and to be known as such one day from a higher plane of knowledge. Perhaps when that time comes the theory of an all-pervading mentiferous ether may help to bridge over the difficulty. For if the object and the brain are alike pervaded by such a hyper-subtile ether ; and if the impression which the particular object makes upon mind be then a sort of pattern of the mentiferous undulations as they are stirred and conditioned within it by its particular form and properties ; and if the mind in turn be the mentiferous undulations as conditioned by the convoluted form and the exceedingly complicated and delicate structure of the brain ;—then it is plain we have eluded the impassable difficulty of conceiving the action of mind upon matter—the material upon the immaterial—which results from the notion of their entirely different natures.

Here in fact is a theory that gets rid at the same time of the gross materiality of matter and of the intangible spirituality of mind, and instead of binding them together in an abhorred and unnatural union of opposites, unites them in a happy and congenial marriage in an intermediate region, and, if I may so speak, in an intermediate substance ; a substance which, mediator-like, partakes the nature of both without being exclusively either. If perchance you object that the theory really only evades the difficulty by putting mind, in the shape of a mentiferous ether, into nature and virtually getting rid of matter, this answer shall

suffice—that the special form and structure of the brain are necessary to determine such undulations of its pervading ether as are truly mental; and that the undulations of mentiferous ether in inorganic and most organic objects cannot therefore have anything more of the character of conscious mind than their material particles have. But of what use is the theory in the end, since in no case does it help us in the least to an explanation of consciousness, it will be said? There, indeed, like most speculative theories of a grandly ambitious character, it will require considerable buttressing; it must, in fact, in order to account for consciousness, assume that which it is required to explain; must be supplemented by the hypothesis (which, being positively wanted, may be said, according to true theoristic fashion, to follow of necessity) that from the multitudinous collisions of mentiferous undulations in the brain, and their consequent infinitely complicated refractions and reflections there—a sort of *ἀνήριθμον γέλασμα* of brain-waves, such as one sees on the sunlit waves of ocean—eventually is evolved such a complex modification of undulations, or such a system of inconceivably rapid atom-quiverings, as expresses itself in a certain quasi-luminosity or phosphorescence—that is to say, in consciousness. If man is able to come and become *by evolution* from molecules, why should not consciousness come and become by evolution from undulations?

Leaving for the present the high regions of this most pregnant theory which, if set forth elaborately in a sufficient number of chapters, with all the proper pomp and panoply of swelling words and thought-simulating phrases, would, without doubt, explain everything from the formation of a molecule to the inheritance by a boy of his grandfather's habit of scratching his nose—all things, in fact, under the sun and in the sun, and in the heavens that are above the sun—let me claim and fix attention to this plain fact: that, although we know the events of our mental life by means of consciousness only, these events do, nevertheless, sometimes proceed without consciousness on our parts, and in that case must be going on somewhere on the one side or the other of that impassable gulf, that bottomless abyss, that lies between

physics and metaphysics. On which side? We do not observe them directly, it is true, but we infer them positively from observing exactly the same signs and the same effects of their operations that they produce when they are operating consciously. In such case, they come to us as objective knowledge; and the objective knowledge, as such, must cross the gulf in order to get into consciousness. How does it manage to do that? It does succeed, perhaps, because the truth, after all, is that the gulf between matter and mind is not a gulf between two entirely separate orders of existence, but a gulf between two entirely different states or modes of consciousness. Here, in fact, as everywhere else, when we push the matter home, we perceive how much too much we make habitually of the range of function of consciousness in mental operations. Examine closely and without bias the ordinary mental operations of daily life, and you will surely discover that consciousness has not one-tenth part of the function therein which it is commonly assumed to have: it is with it there as it notably is with it in ordinary vision, where we only see directly a very small part of that which we think we see, for we directly see a few familiar signs only, while all the rest is inferential; that which is inferred in the interpretation of the signs having been obtained directly by previous experiences of vision and of our other senses. Consciousness does essential service in the building up of faculties of thought and action; its part is comparatively small in the use which we make of them afterwards.

As the higher modes of consciousness unquestionably rest on the lower modes, we may properly, in trying to get to the nearest approach of consciousness to molecular motion, take for consideration the simplest mode of sensation that we ever experience. Now it is certain that a sensation that appears to consciousness to be perfectly simple is sometimes a compound of more simple sensations, none of which it really resembles; these more simple sensations are, in their turn, compounds of still more elementary sensations; and the elements of these, if not themselves, lie beneath the threshold of consciousness, contributing to the

excitation which, when it reaches a certain height or a certain complexity, oversteps the threshold. In every conscious state there are thus at work conscious, sub-conscious, and infra-conscious energies, the last as indispensable as the first. We descend in our analysis of consciousness to the very borders of molecular motion—to the place where the two aspects of being meet and seem to coalesce; for, on the one hand, where sensation actually expires, the continuance of a connected reflex movement shall prove the persistence of molecular motion; and, on the other hand, the experiments of physiology prove a definite measurable period of molecular commotion, known as the ‘excitatory stage,’ to precede invariably the excitation of the sensation. Moreover, the same stimulus which when applied to the nerve suffices ordinarily to excite a sensation, will not raise the ‘excitatory stage’ into consciousness, but will leave it in the state of latent stimulation, if the temperature of the nerve be lowered a few degrees; so that a few degrees of temperature make all the difference between soul and not-soul in a process otherwise exactly the same. Here are combinations of infra-conscious energies to produce a sub-conscious or an elementary conscious state, and thereafter combinations of elementary consciousnesses to produce a conscious result that does not resemble any of them; not otherwise than as chemical elements combine to form a compound with new properties. What reason can be given why these infra-conscious factors of the period of latent stimulation may not resemble or be actually molecular movements? And if they be so, are they so only up to the moment when the spark of nascent consciousness appears, and do they then instantly take on a new character?

Two things are sufficiently obvious with respect to them: first, that self-consciousness cannot tell us anything whatever about them (it would not be self-consciousness, but other-self-consciousness, if it could), notwithstanding that, as we have the best means of knowing, they exist and underlie its states; secondly, that the means of observation by which we discover and examine them do not yield the smallest information concerning the conscious states that

accompany or follow them. However, when we have traced out and established the connections, we have done all that we can be required rightly or wisely need attempt to do. *Why* brain functions as consciousness is just as barren a question as *why* a rose smells sweet; it is enough for us that we perceive by experience that it does. Fragrance of smell or fragrance of feeling—one is neither more nor less mysterious than the other. In order to accomplish our proper work of setting forth the unfailing order of the relations between the objective fact and the subjective feeling, we must make use of the two methods of investigation—that is, must look inwardly to perceive one aspect of the relation and look outwardly to perceive the other aspect of it. Are you dissatisfied with a science thus founded on a double method, fearing a rending cleft in the foundations? There is no cause; the two aspects, subjective and objective, will coincide and corroborate one another; and so, perhaps, in the end psychology will become the most certain of sciences, because founded on the coincidence of two independent methods of investigation—namely, on the direct and immediate method of introspection, and on the objective method of physical inquiry.

Having now done so much to clear the ground and to set the problem in its true light, it is seen that the assertion of the entire unlikeness of the deliverances of self-consciousness to any operations which sense informs us of need not, though really a truism, carry with it the stupendous conclusions as to two different orders of existences which it is invariably weighted with. We will go on now to inquire whether the operations of the body do not present anything in the least like the most elementary and simple functions of will. And here, of course, our duty is to take for consideration the most simple and irreducible elements, not the most complex. The function of a single secretion-cell, thoroughly understood, would teach as much as the study of a thousand such cells, for it would be the explanation of the physiology of secretion; and it is in the complete function of the simplest single cell that the required knowledge must be sought. In like manner, when we inquire into the

functions of reason and will, we shall do wisely not to begin by thinking of Newton reasoning or of Napoleon willing, but to do our best to attend at the humble birth of reason and will. Nowise exalted is the birthplace of the divine on earth : that lesson the manger of Bethlehem might have taught us.

The first task is to take particular notice of the different sorts of complex movement which the body is capable of performing by itself, and to examine and appreciate their true character. The simplest nervous operation, that which is the elemental type or physiological unit of which the more complex processes are built up, as a great house is built of simple bricks, is what is called a reflex act. An impression is made upon some part of the body ; the molecular change or the wave of motion produced thereby in the sensory or afferent nerve is conducted along it to a nerve-centre and unlocks the energy thereof ; that energy is thereupon transmitted or reflected along a connected motor or efferent nerve, and actuates a particular movement through the proper muscles, a movement that may carry a purposive stamp or not. For example, a strong light is thrown upon the retina, and the pupil contracts instantly in order, as we say, to exclude, because the effect is to exclude, the excess of light ; a blow to the eye is threatened, and the eyelid winks involuntarily to protect it ; a lump of food is pushed to the back of the mouth, and so soon as it gets there the muscles contract, grasp and push it on ; the tip of the finger is put between the lips of the malformed infant just born without a brain, and it immediately makes sucking movements. In these and multiform other movements of a like kind, though each fulfils a definite end, the will has no part whatever ; they take place not only without its concurrence, but in spite of its resistance sometimes, as everybody knows, and one of them—the contraction of the pupil—even when a person is completely unconscious in sleep or in apoplexy.

Most striking perhaps in this connection is the instructive instance furnished by a well-known experiment on the frog : if its thigh be touched with a drop of irritating acid it rubs it off with the foot of that side ; and when it is prevented

from using that foot for the purpose, it makes use of the opposite leg. Plain evidence, it might seem, of intelligent design and will on its part, for when it is frustrated in one adaptive effort it has immediate recourse to another. But exclude intelligent design and will by cutting off the frog's head, and the result of the experiment, if made with the proper care, is the same: it tries first to use its right foot to wipe off the acid, and when it is hindered from helping itself in that way it bends the other leg across for the purpose, exactly as it did when it had its head. Of the two fundamental types of animal movements—that is to say, movements of aggression, in order to ensue pleasure and increase life; and movements of defence, in order to eschew pain and ward off what is hurtful to life—Goltz has obtained examples of each in the decapitated frog. For besides the above-mentioned remarkable movement of defence, he has elicited the quack or croak which is the expression of joy, by stroking the creature gently on its back, as well as the movement of the male to embrace the female in sexual congress, by gentle pressure and rubbing, at the proper season, of its breast and the inside of its arms.

With what an admirable purpose then does the headless frog act, howbeit it knows not what it does, any more than the pupil does when it contracts in a bright light, or than the branch of a tree does when, unable to get to the light in one direction, it tries patiently another and more circuitous way. Behold plain proof of sensibility, intelligence and will, may well be the exclamation of those who are not sufficiently mindful that the true mode of viewing the phenomena is not to read into them from a higher experience what is not there, but to read out of them, without bias, simply what is there. The truly warranted conclusion is that the nervous system has the power, instinct in its constitution or acquired by training, to execute mechanically acts that have all the semblance of being designed and voluntary, without there being the least consciousness or will in them; not otherwise perhaps than as the ant performs all the duties of a good citizen in a complex society, without having an elaborate theory of the

constitution of the society in its tiny brain. If people choose to call voluntary the acts that are not conscious, they do not thereby alter the facts, which remain quite different in spite of the common naming; what they do is simply to destroy the definite meanings of the terms that they mis-apply. We cannot have will where we have not consciousness, but it may well be that we have in these adaptive bodily acts the basis of that which, when it takes place in a higher nerve-centre, we are conscious of as will—an energy capable of executing purposive movements, and free, so to speak, to choose the right one, but not free to choose the wrong one. A perfect consummation and bliss: to be freed from the liberty to go wrong, as Malebranche prayed to be, and to possess the freedom of necessarily doing right, which he prayed to have!

As soon as the young chicken is out of the egg it pecks at a grain of corn with quick and exact aim; that is to say, without the least education or previous practice it is able to put various muscles into action, concurrent and sequent, with the nicest adaptation of the requisite degree of contraction of each muscle, to perform a very complex act. Given the mechanism ready to hand, all the skill of the most accomplished workman could not put it into such nice and adapted action to do the exact work. Many months must pass and much tedious training must be gone through before an infant can learn to pick up a grain at all, and no amount of training will enable it to do so with the ease, nicety and rapidity which the chick shows without any training; indeed, the chicken's incapacity would be to imitate the bungling attempts of the child. There must be on the child's part much patient adaptation and many repetitions of effort in order to accomplish the *involution*, so to say, of an acquired energy that shall afterwards be evolved and discharged in function. When the infant has at last learnt tediously to do badly that which the chicken does well at once we say that it acts from volition, while the chicken is said to act from instinct; in saying which it is not meant to imply—at any rate, by those who do not allow a word to do service for an idea—that instinct

is some wonderful entity in it, but simply that the power or faculty of doing the thing is instinct or innate in the constitution of its nervous system. It is but another way of saying that the body has the power, in virtue simply of its physiological mechanism, without any help of will, to execute most complex purposive acts in the most perfect manner. Whether a power of the kind is inborn, as is the case commonly in animals and in not a few instances in man, or is acquired by training and practice, as is the case in a few instances in animals and commonly in man, does not matter as regards its essentially physical nature: in either case we are entitled to see in it a pretty fair physical basis of a rudimentary will.

Another step forward. As everybody knows, the will has not the power to execute only, but it has the power to prevent execution, to hold impulses in check; indeed, its energies are most tasked and its highest qualities shown in the exercise of this controlling function. Our appetites and passions prompt or urge their immediate gratification; it is the nobler function of will, enlightened by reason looking before and after, to curb these lower impulses of our nature. An emotion springing from offended self-love calls into action its congenial ideas of revenge, and instigates conduct in the line of their resultant energies; it is the higher function of a rightly inspired will, having regard to the ultimate good of the whole being instead of the present gratification of a particular function or passion of it, to withstand these forces by summoning into action thoughts of a higher and wider range, whether prudential, moral, or philosophical. The question is, then, whether there is anything in the operations of the nervous system which can conceivably be the basis of this exalted governing function—this capacity, when impulse urges, to act from duty.

When we pass in review the various reflex movements of the body we perceive that there are some—and those essential to the continuance of life—over which the will has no authority whatever: the movements of the heart and of the intestines, for example, which go on regularly night and day, asleep and awake, it can neither slacken nor quicken nor

stop by any exertion that it can make. Neither there nor in the silent depths of the organic life of the tissues are its commands heard. Other reflex movements, those of breathing, for instance, it can control partially; we can breathe quickly or slowly as we please, or even stop breathing for a time, though not for long, since no one can kill himself by simply holding his breath. The will has in that business a strictly limited authority—the authority to intervene and modify, but not the authority to govern absolutely. In order to form a conception of its probable mode of operation when it thus intervenes with effect, it is desirable to appreciate the nature of pure physiological inhibition as we observe it work to check or stop action that is entirely reflex.

Take, for instance, the beating of the heart: the experimenter can easily quicken or slacken the pulsation of an animal's heart by manipulating the proper nerves; for by stimulating the vagus nerve he retards them, and by stimulating the sympathetic nerve he quickens them; thus he demonstrates that the function of one nerve can be exerted directly to inhibit the function of another nerve. But besides this direct effect he can produce the inhibition in an indirect way: for example, when he suspends a frog by its legs and then taps sharply on its belly, or when he exposes its intestines for a short time to the air so as to render them very sensitive, and then simply touches them—breathing the while perhaps, if he bethink himself, a passing prayer that the gain to him will one day be proved to be worth the pain to it—he instantly stops its heart for a time. What presumably happens is that the stimulus of the tap or touch is carried by the affected nerve to a nerve-centre in the brain near that centre from which a nerve to the heart proceeds, and so acts upon it in the result as to inhibit its pulsations. In fact, the experiment teaches that the physiological sympathy of nerve-centres in their intimate confederation in the nervous system is such that one centre, when stimulated to action, has the power to inhibit physically the function of another centre; not much otherwise apparently than as an act of will inhibits the movements of breathing.

This comparison of the temporary arrest of the heart's

beat by an intercurrent stimulus into its reflex arc with the temporary arrest of respiration by an intercurrent stimulus into its reflex arc, will, without doubt, be repudiated by those who cannot conceive the action of will, even when it wears its most physical aspect, to have the least affinity to, or suffer the least comparison with, the action of a physiological stimulus. Between them they see a great gulf fixed. However, if we look calmly and frankly at the facts, with a sincere desire to see them as they are, we perceive the gulf, though impassable directly, to be less formidable than it appears at first sight; for we discover functions that, occupying an intermediate position between a physiological stimulus and will, certainly lessen much the gap between it and reflex function.

Take, as first instance, the molecular commotion of a cerebral centre which in its subjective aspect we call an emotion: its explosion or discharge of energy notably affects violently the movements of the heart and of respiration, in a way the will cannot do. Does it in that case act by the unsearchable path of a metaphysical volition, or by the known physical paths of physiological inhibition? Does the molecular commotion go by one path and the parallel emotion by another? If it be supposed that the rage of an Australian savage whose fish has been stolen from him, or of a speechless idiot that goes into uncouth convulsions of fury because another idiot has a piece of sugar given to it, is of too exalted a nature to be mentioned in the same breath with a purely physiological energy, it will be proper to go a step lower and to take for illustration a sensation. A sharp pain affects suddenly the movements of the heart and of respiration, independently of the will, which may be not only not consentient but actively dissentient; and it is probable that the prick of a pin at the right moment would inhibit the most intense and eager complex reflex movements that a human being is capable of, though a snail or frog notoriously shows itself insensible to pricking or cutting when engaged in the physiological act entailing similar movements. Here we may fairly ask again whether we have not to do with reflex inhibition by physical paths

and by physical agencies; nor can we doubt what the reply ought to be, since there are physiological experiments to show that a stimulus that would cause pain to an animal, were it conscious of it, will still produce its particular effect upon movement when the removal of the creature's brain or the severance of its spinal cord has abolished sensation of the parts of the body concerned. The physical event then takes place, though no consciousness goes along with it.

Without multiplying, as might easily be done, striking instances of inhibitive function, by selecting them from the operations of the body both in health and in disease, it will be well to set down and emphasise the broad conclusions that are thus far warranted. They are these: first, that the nervous system has the power to execute through the proper muscular mechanism purposive acts, without any intervention of consciousness or will, and, secondly, that one nervous centre, when stimulated to activity, may so act upon another of the confederated centres as either to help, or to hinder, or to suspend its function by purely physiological mechanism—may, if it reach a certain pitch of ecstatic activity, so far inhibit other centres as to paralyse their functions for a time; as we see in the examples of the procreating frog, of the religious ecstatic, of the soldier who feels not at the time the wound received in the transport of battle, and in many like instances. Behold then two purely bodily functions that run closely parallel to the rudiments of volition, and may well be their physiological equivalents—to wit, power to command execution of a purpose and power to stay execution.

Having got these firm physiological bases, let us now proceed to examine the simplest instances of volition, as we meet with them in the animal and in the infant. For the right method is to start from the observation of its small and simple beginnings, and not to confuse and perplex oneself by peering introspectively into its highest displays in a much cultivated self-consciousness, where the difficulties of a successful analysis are insuperable. To build up a theory of will by leaving out of account the facts of its genesis and development, and the manifold varieties of particular wills in

individual cases, is to construct an artificial philosophy that may serve well for intellectual gymnastics in scholastic exercises, but which has no bearing upon the concerns and doings of real life—upon the daily incomings and outgoings of men. That will is a power of better quality and higher dignity in man than in animal or infant admits of no question; but that is an excellent reason why we ought to study the successive stages of its evolution from the lower to the higher level of being. When a young dog, in obedience to its natural impulse, seizes a piece of meat that lies near it and is whipped for the theft, or starts off in eager pursuit of a hare that jumps up in front of it and is sharply punished for its conduct, the memory of what it was made to suffer for yielding to instant desire intervenes on the next similar occasion between the impression on sight and the ensuing impulse, and checks or inhibits it. In like manner, when an infant, obeying its natural impulse to apprehend objects by grasping them, seizes hold of some bright object that attracts its gaze, and is burnt for its pains, it remembers its painful experience; and the memory of the pain that it suffered intervenes to check or inhibit a like hasty movement on another occasion. Here, then, are two simple instances that are just as instructive as a thousand similar instances would be: the animal and infant has each voluntarily restrained itself from doing what its first impulse was to do; of two courses it has chosen the best—the path of enlightened prudence or duty in preference to the path of natural proclivity. You may complicate the business as much as you please by multiplying the experiences and reflections, till the outcoming will is the resultant of manifold, intricate, delicate, and circuitous interactions, but that alters not the fundamental character of the process; in the simple instances adduced we have the typical scheme of volition, the elemental units of the most complex willing.

Let us now proceed to consider the physical side of the process. What has happened there? In the first case, where the dog on seeing the meat seized it instantly, a particular impression on the sense of sight, the conduction of the molecular motion caused thereby to a special nerve-

centre, and the consequent excitation of a special perception, as the ingoing process; then, as the outgoing process, the transmission of liberated energy along motor nerve to muscle, and a consequent adaptive act: what we call a reflex process in the mental plane. In the second event, when the punishment was instantly inflicted upon the dog for yielding to its natural proclivity, there was the painful stimulation of another nerve-centre by the blows, with the appropriate motor outcome in writhings and howls, whence followed the association of the pain with the immediately preceding event. This close functional association of nerve-centres corresponding to the close contiguity of the events being effected—a subjective necessity reflecting the objective sequence—thenceforth the excitation of the first reflex process entails the excitation of the second. Accordingly, in the third case, where the dog withstood the impulse to snatch the meat, there was along with the special perception the immediate stimulation of the associated nerve-centre that had suffered and registered the memory of the suffering; and the consequence was the resistance to or inhibition of the instant impulse and the prevention of the movement. In other words, one of two catenated nerve-centres has been excited to inhibit the other.

It is not difficult to conceive the multiplication of this simple scheme of associated centres—these physiological units of composition—and a corresponding increase in the number and intricacy of their connections; for it is easy to conceive such a dynamically associated group of centres to become, in turn, the unit of further more complex groupings, and so on in multiplying complications; and if we do that, we shall have a pretty fair general conception of the constitution of the brain, which contains actually a countless multitude of inter-connected nerve-centres, of high and low dignity, arranged in the same layer and in superimposed layers, functionally differentiated, and ready to be stirred into action by suitable stimulation to increase, to combine, to restrain, to neutralise, to modify in unknown ways one another's function. We might perhaps assist conception by thinking of it as a sort of 'Bradshaw's Railway Guide,' the many thin

and closely printed leaves of which, covered with a multitude of seemingly unintelligible figures and hieroglyphics, might well appear to be without significance, or to have significance lost in an overwhelming complexity; nevertheless, when they are understood, these figures, not one of which has not its proper place and meaning, tell the times of starting, the stoppages, the junctions, the destination, and the times of arrival of every train on every line in the country; they tell us, in fact, almost the exact place of every train on every line at a given moment, and so exhibit the clearest order in what, could we compass the whole, spread out like a map, in a bird's-eye view, would seem an intricate mass of confused movements beginning nowhere and ending nowhere. So is it with the brain and its multitudinous stations, tracks, junctions and branch lines, its quick trains and slow trains of thought. For as counterpart, on the mental side, of the exceeding complexity of physical structure we have always more or less complex deliberation going before the formation of will; which comes out at last from the intricate and circuitous interactions of so many hopes, fears, inclinations, desires, promptings, reflections—of so many constituent elements of the individual character—that we are utterly unable to analyse them successfully, and so to specify accurately the exact factors in the complex composition of forces which the particular will is the resultant of. It seems a perfectly legitimate conclusion, then, that in the inhibitory action of one nerve-centre upon another, as known by physiological observation and experiment, and in the simplest instances of volition, as known by self-consciousness, we have two processes that run parallel—parallel in simplicity when they are simple, parallel in ascending complexity and intricacy when they are complex.

Reverse the conception of a complex nervous system built up step by step by ascending multiplication and combinations of simple factors, and imagine the successive removals, in a descending scale, of the more complex superimposed parts: each more simple type, as its level was reached in the process of denudation, would find its normal representative in the descending orders or genera of the animal

kingdom, until we reached in the descent our basal elemental type or unit of composition, which we find realised in the lowest creatures that possess a nervous tissue, and in the lowest examples of nerve-function in the higher animals. And assuredly we should find functions less and less complex running parallel to the more and more simple structure: complex will giving place to less complex, and this in turn to simpler volition still; simple volitions replaced by obscure desires and instincts; instincts by simple reflex acts, and reflex acts in the end by simple irritability of tissue. The unravelling of the complicated web of structure would be the progressive simplification of function and the gradual waning of consciousness. It would be a plain demonstration of the exact parallelism of structure and function.

Throughout the foregoing exposition there has been assumed on the part of a nerve-centre, once stimulated to function, the capacity to retain something of the effects of that stimulation, whereby it puts into after-action that which it has gained by reason of its first action. This capacity of retention, which is the foundation of the mental faculties called acquisition, retention, recollection, is a purely physiological property, essentially independent of consciousness, and operative whether memory goes along with it or not; and it is by virtue of it that, as previously pointed out, structure is moulded along the lines of function and that the ease of performance which we call habit is acquired. We have to take notice and to bear well in mind that this registration takes effect in the organic grouping of centres that have acted together, as well as in the modification of the particular centre; and that in such capacity it is the foundation—first, of the *association* of centres and their corresponding ideas, and, afterwards, when that has been made very close and firm, of the *integration* of ideas, so that simple ideas unite to form complex ones and in the result several come to act almost as one. A statical grouping of centres is the foundation of a dynamical association of functions; and this process of primary groupings into secondary more complex groupings, and of these in turn into still more complex groupings, goes on through all the manifold plexuses of

thought; a complex mechanism of thought being thus formed step by step—a true mental organisation—that may be in function or at rest, in part or whole. No wonder that we are unable at any moment to recollect more than an infinitesimal part of that which is stored in the so-called chambers of memory, and are not even conscious that it is there. We have collected it and laid it by, duly classified—that is to say, arranged and fixed it in its proper organic groupings; but we cannot re-collect it and use it in cogitation unless it is stirred into activity through established links of associations, or by the stroke of some chance-impression in its close neighbourhood. Note here an apt example how the derivation of words helps to elucidate the origin and the growth of their meanings; for the word *cogo*, to *collect*, becomes the basis of the words *recollect* and *cogitation*, and these words in turn have been the foundations of the metaphysical faculties of cogitation and recollection.

If we could imagine human beings to have been constructed just as they are, with the one exception that they were without consciousness, and to have been placed in exactly similar circumstances to those in which they have been placed, we may be sure, I think, that their doings would have exhibited a logical connection; that in the synthesis of impressions made upon them, and in the deductions of conformable action, there would have been implicit that which, when illuminated by consciousness, we call reason. No organic being could live and thrive without having some sort of synthesis, though an entirely unconscious one, of the world; it is implicit in every purposive reflex act, which is itself virtually an unconscious judgment and the basis of conscious judgments. It is from this solid standpoint that the ways and doings of animals and savages ought to be studied. They are examples of reason latent or implicit in adaptive organic function, and they do not necessarily postulate the bright consciousness with which we illuminate them when reflecting on them. The reason is rooted in the mechanism, not in the light by which consciousness reveals its operations: the conscious theory is the transcript, not the original. It is because of the erroneous method of reading into the minds

of low savages the information of a highly developed self-consciousness that the elaborate expositions of the original beliefs of mankind, or of the primitive data of their beliefs, which some philosophers have undertaken, are so easy, so empty often, and sometimes positively ludicrous; they are applications of the acquired beliefs of evolution to explain the genesis of themselves; deductions of the primitive states of human thought, feeling and conduct from the much-importuned consciousness of a philosopher, who imagines how he would have felt and thought and done had he been a primitive specimen of the race instead of its crown and consummation. If his philosophy has not been learnt practically and consolidated by living and working among men in the affairs of common life, but has been pumped out of himself in the arm-chair of his library, he will propound you thin theories suited to all difficulties; and the final explanation of all things by him shall be so lucid and complete that the only wonder is God required so many as six days in order to create the heavens and the earth and all that therein is.

All life, including the highest thought-life of the brain, has two sides that necessarily co-exist, namely, a plastic or nutritive side, and a disruptive or functional side; and these correspond respectively to composition and decomposition of substance, to analysis and synthesis. The *synthesis* is again of two sorts: a chemical manufacturing of the material whereby it is made suitable substance; and a *morphological* distribution of it in structure, a building of it into definite and special *forms*. In like manner, the analysis is of two sorts: the liberation of energy from chemical decomposition of substance; and the definite character of the liberated energy, its unity of special function, according to the particular structural *form* which undergoes disruption or resolution, so to speak. The dualistic doctrine of a separate mind is therefore based upon an artificial and impossible separation of the two necessarily co-existent sides of thought-life, namely, the plastic and the functional. That is what physiology says; and it says, moreover, as a plain matter of experience, that there is not a single bodily phenomenon

that has not its sufficient determining conditions in an antecedent state of the body. Where has free choice or will a place in these events?

Those who admit that physical and mental events go along together as exactly parallel phenomena, so that in describing them, were they both thoroughly known, we might very well be describing one in terms of the other, or the same thing in different languages, and who nevertheless bring the correspondences, so exact and constant up to an unknown point, to an abrupt end by the arbitrary intervention of freewill, should endeavour to go deeper than they do into the inmost and most intimate physical facts, and to imbue their minds with fitting conceptions of their necessary order. They may well consider, among other things, that the time-rate of a volition is a measurable process; that it varies in different persons, and in the same person at different times, according to varying bodily conditions; and that it may be experimentally lowered by lowering the temperature of the centre in which it is generated. What room then for a metaphysical intervention, what need of it, what result of it? From the physiological standpoint we may say confidently that it is not wanted, that there is no place for it, and that, if it be, it always lets the result go as if it were not. To assert its intervention anywhere or at any time before the physical antecedents of a volition, or between them and the volitional outcome, certainly is not *psychology* but *psychogeny*; it is therefore doctrine which may properly be relegated to the domain of *cosmogony*.

In two matters—those too matters in which the questions admit of being put with exceptional exactness and might claim therefore plain answers—we fail to get from the philosophical upholders of freewill a frank, definite, and consistent statement of their opinions. The first is the exact moment or point of evolution in the animal or the human series where the undetermined will makes its first appearance, since it is not generally assumed by them to be co-extensive with volition. Do they or do they not believe that God, having created man in His own image, endowed him with the ultra-physical power, so that all men—serfs,

savages, philosophers, idiots and lunatics—always possess it and always have possessed it? Observe that it is not a question of the widely different degrees of development of the same kind of volition—if it were that, we could comprehend what was meant—but a question of the abrupt interruption somewhere, no one saying exactly where, of an extraordinary ultra-physical factor. Are they thereupon willing to maintain, in opposition to the overwhelming evidence of facts, that animal volition is of essentially different kind from the lowest human volition, no animal possessing jot or tittle of ultra-physical essence? Or did the ass of Eden sin against freewill by eating forbidden thistles, and so, sharing in man's fall, come to incur all the sufferings that it has since patiently undergone from him?

The second point respecting which it is hard to get a definite and consistent answer is whether the freedom of choice that is supposed to go before free action of will has, as every other mental phenomenon confessedly has, a material equivalent in a particular brain-action. If it has, where is the ultra-physical freedom; if not, where is the ultra-physical intervention? Apparently one is required to be vaguely content to allow the antecedents and outcome of a volition to take place practically as physical events, and to admit that they take place in exact and even compulsory correspondence with a series of motives and a resultant will, so long as it is acknowledged theoretically that the ultra-physical factor exists in the background, and is capable of intervening in the rarely or never occurring event of its being called upon to do so. An actual intervention is not insisted upon in any particular case, if only it be granted generally that it may take place if it wills or pleases: the chain of events is practically compulsory, but theoretically it may be broken and pieced again at any link. To refuse compliance with so modest a request may appear ungracious, when compliance seems to cost so little; but none the less would the acknowledgment be an implicit avowal that causation does not reign in human events, and that a science of human mind must always be metaphysical nescience.

It is remarkable how little the advocates of a meta-

physical soul, though never so exacting in their critical demands upon materialistic theories, ever think of the many difficulties of their own theory, and how quietly they pass them by as parts of the big mystery which they feel no obligation to explain or even to consider. If a soul is to be postulated, surely one is entitled to be told something about it. Of what substance is it made, because substance of some sort it must have if it is individual? If of spiritual substance, what conception of spirit is possible other than a conception of something that is more subtle than the most subtle matter known? Where was this spirit before it entered into the body, and at what precise moment of its development, when it was yet in the womb, did it take possession of it? In what part of the body does it dwell? Is it co-extensive with body, and yet itself without extension? Will it, when it takes leave of the body, be able to feel and think and will in the same manner as it does now through the body? And if not, how will it keep consciousness of its identity and have continuity of existence as the same being? How does it now act upon the body, and how is it acted upon by it? How many bodily functions are possible without it, and what is its part and exact range in those functions that are not possible without it? Do the animals that approach nearest to man possess souls, especially those that in some measure think with him, feel with him, and act with him; and if they do, whence came their souls before life, and where will they go after death? Is the animal soul material, and the human soul immaterial? Are we called upon to make three divisions of substances in nature corresponding to differences of properties—the two last of them being sorts of spiritualisations of matter—namely, (a) gross and palpable material substance; (b) animal and quasi-immaterial; (c) human immaterial?

That other persons feel as I do, I know by their cries and gestures when they are pained or pleased, and that they think as I do, by their words which they have taught me to understand; in both cases, that is, by certain movements that are visible or, so to speak, audible to me. I know the same of animals so far as gestures and cries inform me,

which are, after all, more genuine indications of mental affections than words; and certainly I feel quite as sure that the crouching, fawning, gambolling dog is expressing emotional states as I am that a gambolling child or any one who tells me he feels them is. What then am I to think of their respective origins? That the same kind of sensation, sentiment, and reason proceeds from entirely unrelated sources in the two cases—in the one betokening a soul, and in the other being the outcome of matter divinely adapted to perform such high functions? And if matter be in any case sufficient by itself to perform them, why call in the superfluous aid of a soul to do the same kind of functions in men? If it be argued that the soul of man stands high on a quite special platform, because it has the subjective certainty of an intuition into its own states, still the objection may be made that the revelations of my self-consciousness can only have *individual* certainty, and that the intuitions of another person's self-consciousness, however certain to him, and by whatever outward means communicated from his *within*, who is to me *without*, to my *within*, can only have the same sort of objective value to me as the revelations of an animal's conscious states through its modes of communication with me. A subjective psychology, in so far as it is subjective, cannot transcend the personal range, or have more than personal certainty.

These and many like questions and objections might easily be propounded in order to provoke the metaphysicians to a searching examination of the weak points of their own doctrine, or at any rate in order to abate the elation with which they denounce the weaknesses of materialism and usurp for spiritualism an impregnability of position which it has not. As life, however, offers much too much to do, and only a short time to do it in, any one whose instincts are practical will pass them by as matters of idle and endless controversy. Accepting the exact parallelism which there is the best reason to believe to exist between physiological processes, made known by the senses, and mental processes, made known by self-consciousness, he will make it his scientific aim to trace out patiently the exact correspondences

between the two, and so to arrive at such a precise and full knowledge of both as to be able to say with certitude: This physiological state of things being manifest to observation, of necessity this psychological experience will be sensible to consciousness; and to say that of every mental function of the brain and of every affection of consciousness. Those who are alive when that day comes, may then rightly say, after the manner of Spinoza, that the brain is visible mind and the mind invisible brain. Meanwhile, as we of this day and generation are not likely to reach that fulness and exactness of knowledge, it will be wise not to describe the objective aspect of mental events in terms of the subjective, nor the subjective in terms of the objective indifferently, but to keep their respective languages apart; aiming only to bring about as close and exact a correspondence between the descriptive languages as we discover between the external facts of observation and the internal facts of consciousness. This we may do without being such exacting pedants as to be offended with expressions like the *wail* of the winds, the *murmur* of the water, the *sighing* of the breeze, the *joy* and the *melancholy* of nature: expressions which, after all, bespeak a truth of unity that is deeper than knowledge.

SECTION II.

CONCERNING THE NOTION OF NECESSITY.

BEFORE I proceed to further considerations of a physiological kind respecting will, I pause by the way at this fitting halting place in order to make a reflection about necessity. As most people discuss the so-called freedom of will as an abstraction, without being in good earnest to test their conclusions by a rigid application to the concrete case, and so to get an exact apprehension of what they really mean, satisfied to rest in the vague, and invariably falling back

upon the bare dogma whenever they are confronted with practical difficulties; so likewise do they transform *necessity* into a sort of abstract despotic entity, and look upon it as a sternly binding tie, an inexorable fate, in all operations of nature from which freewill is excluded. It seems to be an invincible tendency of the human mind thus to make entities out of abstractions; for materialists display it, equally with metaphysicians, since they talk of matter (which is purely an abstraction) and discuss its operations, as if it were a real thing and had existence apart from its manifold varieties. If a man's will be not free, we are supposed to conclude that he is under the dominion of this irresistible compulsion, this fateful necessity, and not a responsible agent; that he is not a proper subject either of praise or blame, since he could not will but as he must, and could not have done otherwise than as he did, whatever he did. Certainly he could not have done otherwise than as he did on that occasion, but he is not therefore fatebound to do the same on another occasion.

Necessity has not objective existence any more than a smell has objective existence; it is merely the general expression or statement of all human experience that definite antecedents are invariably followed by definite consequences: a declaration of invariable uniformity, the opposite conception to which is not freedom but contingency. It is a law of nature, and therefore a necessity, that the sun rises day after day; but time was when the sun did not rise on human doings, nor at all, and there will be a time happily when it will not rise on them any more, nor rise at all. General laws are not outward realities, but our notional relations to outward realities. Change the antecedents of a choice of will, as a person does when he profits by experience, and where is the necessity? He is now under the necessity that his past acts have made for him to follow the changed antecedents. The man who walks to the cliff one day in order to commit suicide and does not do it, and walks to the cliff another day and does do it—other things being the same—would not have done it the second time had it been the first, and would have done it the first time had it been

the second. The dog which, obeying its instinct, starts in chase of the hare, is under the necessity to do as it does on the first occasion; it is under the necessity to do differently on the second occasion, if it suffered pain for what it did on the first and does differently in consequence. According to the existing order of nature, a stone dropped from a height into space *must* fall to the ground: it is under that *necessity*. But it is not an absolute and variable necessity; it is a necessary law only so long as it is not interfered with by the operation of some intervening law; and when we say that the stone is compelled to fall downwards by the law of gravitation, all we do really is to make a general statement of universal experience that heavy bodies do fall to the earth at a certain rate, unless they are prevented. Accordingly, when we observe that a piece of iron does not drop to the ground if a strong magnet be suspended just above it, but is drawn upwards to the magnet and held fast by it in opposition to the pull of gravitation, we are not in dismay because a fatal necessity has been outraged and deposed, and the world is likely to fall into universal anarchy; but we set to work forthwith to collect and collate our experiences of the operations of the intervening power, and to find out and formulate the most general statement that we can concerning them—that is, to formulate the so-called law of its action. Not so, says perhaps the necessitarian, that is not quite all, there is something more than the mere statement of a uniformity of experience; for it certainly is a necessity that all bodies *tend* towards earth if they do not actually reach it; they have no choice, no alternative in the matter; and if they are prevented, it is that they are suffering a restraint of their natural tendency.¹ But the truth is that the piece of iron, magnet-attracted, *tends* the other way; it makes another choice, doing what is most agreeable to its nature in the circumstances; it obeys the temporary attrac-

¹ In this use of the word tendency to connote a sort of spontaneity in a body's gravity we remark a relic of the metaphysical interpretation of nature which imbued it with sympathies and antipathies, loves, and abhorrences, &c. We might as well talk of the chemical *yearnings* of one element for another, or imitate the scientist who, lecturing before a royal personage, said: 'These gases will now have the honour to combine before your Royal Highness.'

tion of the stronger motive. So an individual, if he be free from constraint, wills what he wishes, and wishes what is most agreeable to his nature in the then circumstances, and is most free in doing so.

Except in the far greater number and complexity of the circumstances, is there any real difference between the choice that a man makes between two courses of action when he is in doubt and the choice that the piece of iron makes between falling to the earth and rushing to the magnet? It is possible to imagine it placed, though impossible to place it, so nicely between the attraction of the earth and the counter-attraction of the magnet that it shall be held suspended in doubt, in an equilibrium of choice, unable to resolve which way to go, like a man between two evenly balanced motives, or like the legendary ass fixed exactly half way between the two exactly similar bundles of hay. If it be true, when the man decides, that his freewill has put an end to the difficulty for him by giving the requisite preponderance to the attraction of one of the opposing and equal motives; and if it be true that the ass may count on its freewill to prevent it from standing still until it is starved to death, notwithstanding the exact equipoise of motives; why is it not true also that it is the freewill of the piece of iron that determines it either to rush to the magnet or to drop to the ground, since it is practically impossible to balance the counteractions so nicely as to keep it in suspense between them? And if the least change, a change so trifling that we cannot even fix and appreciate it, was enough in that case to give the preponderance in one direction, and to move it from the ideal centre of indifference, is it any wonder that in a far more subtle province of matter we cannot always apprehend and measure the slight change that gives the preponderance to one or another motive in the complex workings of human volition?

In the objective necessity which it has created the human mind has transformed its subjective experience into objective being; but the necessity so created is really, like space or time, only a condition or form of thought, a subjective necessity. Feeling necessity in itself, as it needs

must, since it cannot help thinking two thoughts together that have *always* occurred together, co-existent or sequent, it has made it a despotic entity outside itself. Because it is bound to think a co-existence or sequence, it objectifies the necessity. So far as we can think of nature apart from man, or of man apart from nature, and so far as we can touch a real-in-itself in either of the two ideals—liberty and necessity, we are well entitled to say that there is far more necessity in man than in nature, and far more freedom in nature than in man. Let it be acknowledged, then, that we know no other necessity in nature than the necessity which we make in formulating our experience, and that it will last just as long as our experiences are as they are, and no longer. Could these experiences become wider to-morrow and reach a higher plane of being, any so-called law of nature might be contravened and shattered; and were our modes of relation with external nature changed fundamentally—by the acquisition of a quite new sense yielding quite new experiences, or, better still, by the opening in us of half a dozen new senses revealing new worlds of experience—then our fundamental laws of thought would be changed also, our universal categories revolutionised; and our necessities of to-day, the eternal verities we swear by now, would show beside the eternal verities we should swear by then like the painful gropings of a blind man beside the quick, apt and easy movements of one who has his perfect sight. A race of men that was both blind and deaf would go very quietly about its business without being disturbed in the least by the crash of thunder or the flash of lightning; but it would not therefore follow that thunder and lightning were not real things to another race more amply furnished with senses. Are there no stars in heaven because the eyeless polype cannot see them? Is there no law of gravitation because the brainless oyster does not apprehend it? Is the world without moral feeling because the octopus is insensible to it? Is there no music of the spheres because 'this muddy vesture of decay doth grossly close us in' that we cannot hear it? An atom in immensity, a moment in eternity, a single pulse, so to speak, in the flux of life upon earth, man

cannot transcend the narrow limits of his small capacities; can only reflect in knowledge more or less adequately the minute spot of space, the brief moment of time, in which he is; can know little more in the end than how exceeding little it is that he can ever know, how infinitely much he can never know. 'Where wast thou when I laid the foundations of the earth? Canst thou bind the sweet influences of Pleiades, or loose the bands of Orion?' All which by interpretation is that man cannot go outside the vibrations of matter to which he is constitutionally sensible, and tell us anything of that which occasions no answering vibrations in him.

SECTION III.

INVOLUTION AND EVOLUTION.

IN pursuit of the purpose to get as close as possible to the life of mind, that is to say, to its actual relations as a vital phenomenon, let me now point out that no one's mind is an individuality in the sense of independence and separateness which we commonly attach to the conception of individuality. The mind in truth is not an independent, perfectly distinct, self-sufficing being, any more than the body. It is *continuous* and *dependent*; for it is a becoming from the basis of all human past through the means of an essential co-operation of surroundings; and it is for this reason that it can only be adequately studied and thoroughly known (a) *historically*, and (b) in relation to its *surroundings*. These are the methods of a fruitful psychology; for it is in those two relations that mind can, properly speaking, be said to have being and to be capable of scientific investigation. It is plain enough that the body cannot live and be without food and air and warmth: to talk of a living body as an individuality apart from its external medium, is to talk of an abstract conception, a notional existence, not of a real thing.

Every element of tissue requires what Lamarek calls its ambient medium, and could not be a living element of tissue, or even a lasting element of non-living tissue, without it. Life is the expression of the fit relations of the organisation and its environing conditions; the result, that is to say, of the interactions of a part of nature combined or organised into a certain complex form and of the outside nature with which it is in essential relation. The organism, acting on nature to modify it, and in turn acted upon by nature and modified—made by circumstances for circumstances—is itself nature; one of an infinite multitude of temporary incarnations of matter that in a little while will fall to pieces and go back to the main body.

Many of those who talk with easy fluency of the organism adapting itself to its environment, are apt to let the mouth-filling words fill the mind too and so hinder an exact application of thought to facts. In the first place, they are dwelling too much on one aspect of the relation, and are thus using language which, so far as it has meaning, means only a partial truth, since it would perhaps be as true to talk of the environment *adapting* itself to the organism; and in the second place, they easily demoralise themselves by treating the vague doctrine as if it were itself what is intended by it, instead of making it real knowledge by patiently investigating and disclosing the processes of the particular adaptations; until, growing in inflation, they are content with such knowledge of life as is implied in talking of it as adjustment of internal *relations* to external *relations*. No doubt there is in the phenomena of life the adjustment of internal to external relations, as there is in them the relation of a somethingness to a something-elseness; but it may be permitted to doubt whether either proposition is a very valuable addition to knowledge, and, if it were a question between the two, whether the latter has not the more solid and *substantial* meaning.

As it is with the body so is it with mind, which is the flower of its function, the supreme expression of its life. It also is the outcome of the organism and its environment, and could no more be without the ambient medium than it

could be without the organism. Certainly it has requirements beyond those of the body; it requires not only the physical medium that the body requires, but it needs also a *social* medium; deprived of this essential element of its being, it could no more live than the body could live deprived of air. That is what we mean when we define man as a *social* being. He lives only as a unit of a social organisation, in vital relations to it, acting upon it and acted upon by it, inspiring and breathing its social spirit; he could not live and move and have his human being separate from it, any more than he could live and move in a vacuum, or than a nerve-cell could live detached from its plexus in the brain. As the air is the breath of his body, which without it would be dead, so the social medium is the life-breath of his mind, which without it would not wake to consciousness. No one can help assimilating unawares the moral atmosphere of the medium in which he is; he will feel and be as he lives; and so it comes to pass that persons who, like thieves, have renounced all the obligations of common morality are still imbued with a sort of 'honour-among-thieves'-morality, the obligations of which they own, and that persons of an average standard of general morality are sometimes no better than criminals in respect of some special relations of their particular sect, trade, or other social circle to the rest of society. There is nothing that is thought natural which may not be made to seem unnatural, nothing that is unnatural which may not be made natural, by long usage and custom.

In order to elucidate further the essential relations of being that hold between the living element and its medium, it will be well to glance at the transformations which matter has undergone on earth—to endeavour to apprehend the meaning of its successive transpeciations. Time was when no life existed on earth; it is now filled with the most complex forms of life, which have succeeded to more simple and general forms; the mutations of living matter having been on a scale of increasing complexity, and new manifestations of energy having accompanied the successive complications. Going below life to non-living matter, we trace a

similar progressive complication as we pass upwards in knowledge from simple chemical combinations of elements to complex combinations, and from these again to more complex combinations still, until we reach that exceeding complexity of composition in a small compass which exists in, and constitutes the basis of, living matter. Thereupon, making this simplest living element the starting point of a new ascent, we rise from it through successive complications of organic matter—from the gelatinous and scarcely animalised substance of such creatures as the polypes and the infusoria—which, as Lamarck observes, has little more than the consistence and colour of water, and is incapable of making a soup that would be nourishing and strengthening to man—to the more complex and highly animalised flesh of birds and mammals.¹ And not in substance only, but in structure and form also, we note the same manner of progress through multiplying complexities and specialisations from simple forms of organism, seemingly homogeneous in substance, to the most complex organisms with their varieties of elemental tissues, their intricate combinations of tissues into organs, and their intimate physiological union of organs. There has been a progressive exaltation of matter, a more and more complex involution of it, an ascending transpeciation, so to speak, as the foundation and condition of that process of a higher *becoming* of things which we call *evolution*: in fact, it comes to this in the intimate and essential relations of organic and inorganic nature, that there is not an organised living creature that does not presuppose and, as it were, involve the whole history of the earth antecedent to it. Therefore, instead of being satisfied with one process of so-called evolution, we ought perhaps rather to recognise,

¹ 'La chair et le sang des mammifères et des oiseaux sont les matières les plus composées et les plus animalisées que l'on puisse obtenir des parties molles des animaux; aussi, après les poissons, ces matières se dégradent progressivement au point que dans les radiaires mollasses, dans les polypes, et surtout dans les infusoires, le fluide essentiel n'a plus que la consistance et la couleur de l'eau et que les chairs de ces animaux n'offrent plus qu'une matière gélatineuse, à peine animalisée. Le bouillon que l'on ferait avec de pareilles chairs ne serait, sans doute, guère nourrissant et fortifiant pour l'homme qui en ferait usage.'—Lamarck, *Philosophie zoologique*, vol. i. p. 216.

investigate, and describe three processes—namely, (a) Involution, (b) Evolution, and (c) Dissolution; which processes, though three when viewed in relation to individual parts, are not three, but three aspects of one process, when viewed in relation to the embracing whole.¹

Two leading facts, then, and for us ultimate facts, which it behoves us to apprehend and firmly fix in mind, are—first, that there has been what we may call a *nisus* of evolution in nature, and, secondly, that progressive transpeciations of matter have been events of it. Continuity of nature certainly, but as certainly not of kind in nature; for the continuity is of different kinds, therefore in some sort a discontinuity, a new kind springing from the basis of the old kind: not continuity by homogeneous but by heterogeneous generation. A new chemical compound with new properties was a new thing when it appeared first; though it presupposed the elements that united to form it, and therefore had a continuity of being with them, its new function was not the sum or mechanical effect of the co-operation of their properties; it was quite a special power that might properly be said to have its *autonomy* or, so to speak, its *spontaneity*. It is vain to ask *why* it is so; we must observe what has taken place, accept that as ultimate, and be satisfied to trace *how* it is so. In like manner must we accept as ultimate facts other steps in the transpeciation of matter and energy: organic matter from that which is not organic, life from not-life, reason and will from sensibilities that are not reason and will, sensibility from simple irritability, consciousness from that which is not conscious; for everywhere it is the same problem that meets us—namely, from the lower to make the higher, from that which is not to obtain that which is. It is no real inconsistency to accept two views that are sometimes opposed to one another as contradictory—namely, the opinion of the essential continuity of

¹ Lamarck enunciates the notion of involution as the complement of his doctrine of the transformation of species. The more carefully one reads his works, the more one realises with surprise what inadequate justice has yet been done to this great pioneer, who for so long a time was hardly known except by a ridiculous travesty of his doctrine.

existences and events in nature, in simple virtue of the agency and properties of matter; and the opinion that the so-called continuity is really a succession of creations through new involutions of matter. The process is not, properly speaking, an evolution, unless evolution be complemented by a worked-out theory of involution, but an *epigenesis*. Certainly the most exact and complete mathematics of *quantity* will not avail to explain *qualities*.

At some vastly remote period of the world's history—a period so remote that the distance can hardly take definite form in a mental conception—non-living matter reached such a complexity of intimate combinations and was in such fitting external conditions that it underwent what was then an extraordinary transformation into living matter. Theologians will not care nowadays to dispute the transformation, if it be granted that the event was the immediate work of divine interposition, a direct creative act. Once formed, living matter has the property of perpetuating and increasing itself by taking into itself non-living matter, converting it into its kind—*assimilating* it, as it is said—and so making it vital; not otherwise than as a spark of fire, once it has with great pains been obtained, grows into a flame and continues to spread when it meets with suitable aliment. The ease and rapidity with which now is effected by living matter a transformation that took place only in the first instance by successive steps and, as it were, after long and slow preparations, must be attributed to the fact that the small vital particle contains in itself and supplies actually in its function the essential conditions of the transmutation which were then obtained only after many trials and chances, and by favour perhaps of a happy coincidence. So in unknown way it works a conversion to its nature by the infection of its presence and influence. I use the example of a spark of fire not as an explanation, but as a comparison, in order to assist the conception of what takes place; for as the fire raises the matter near it to such a temperature that it catches fire, or as an orator's enthusiasm so inflames the enthusiasm of his audience that they flare up; so the particle of living matter contains, concentrated in its minute but

complex compass, and supplies in its living energy, the concurrence of conditions necessary for the transformation of non-living aliment into its own living nature. On the one hand, then, those who see a miracle in the first appearance of living matter on the earth are bound to see a miracle in the history of each particle of dead matter which a living thing converts into its own nature; on the other hand, those who see in the new event nothing more than an ordinary operation of matter, ought not to delude themselves by a misuse of the word *ordinary* to describe that which, when it took place for the first time, was certainly a very *extraordinary* operation of matter.

The elements of the universe being what they are, the combination of them into a living molecule was inevitable at some time or another in some place or another. For if the number of these elements be finite and constant, and their properties everywhere the same, as our experience of them in suns and stars warrants us to believe they are, we have the right to suppose that an infinite number of combinations of them has taken place in the infinite time and space that have been available for such operations; and therefore it would follow that somewhere or other, at some time or other, there has been a realisation of every possible combination and development of matter. Not of chemical matter only, be it understood, but of matter in its highest known form as the substratum of sensation and thought; for then, as now, in the evolutionary ascent sensation must have appeared with the attainment of a certain complexity of the fitting organisation, and thought of the same quality as exists now must have followed organic combinations having the same qualities as now. We do not discover the differential calculus in the *Amœba*—indeed, we are persuaded that there was a time when the *Amœba* was and the differential calculus was not; but we are perfectly sure that, the conditions of the earth having been what they were, the discovery of the differential calculus was inevitable some time in the chain of organic events. For anything we know to the contrary, nay conformably to the probabilities of all that we do know, it may have been discovered thousands of times in

thousands of other planets; in which in the course of an infinite past every possible composition of matter and every possible conception of mind have very likely been realised over and over again. There and then, as here and now, those combinations of elements that were most stable would endure and become the basis of still more complex combinations, and so the whole series of events follow in inevitable order; the differential calculus at the proper time, as certainly as the coming into being of an organic molecule when the fulness of its time was come. And seeing that organic matter, once it has come into being, sustains and increases itself by preying upon other organic matter, there must needs ensue in due course all the horrible consequences of the struggle for existence on earth. What an overwhelming reflection! That the same animal ferocity in pursuing, killing and devouring through all the forms of animal life; the same human vices, miseries, cruelties and crimes that have filled the earth with groans and lamentations through untold ages; the same inadequate notions and abortive struggles; the same fruitless aspirations and prayers that have been little more than cries of conscious impotence;—that all these things have been many times in the infinite past of being, as the result of the same organic combinations that prevail on earth now, and prevail also perhaps at this moment in more than one of the infinite multitudes of worlds that are scattered through infinite space! So may it be that when the high-souled poetic being gazes into the blue deep of heaven on a cloudless night, rapt away from things of earth in a transport of ineffable ecstasy, and is thrilled with mysterious sympathies that bring him into sacred communion of spirit with something that he sees not, apprehends not, thinks not, but feels is there, he is experiencing the dim intimations of a nearer kinship than he suspects.

May we not discern a dim perception or vague adumbration of this eternally recurring evolution and dissolution of worlds and beings in the old and widely spread doctrine of a transmigration of souls? It was one of the traditions of the Rabbins that those who had been the guiltiest of the guilty, and who had made themselves abominable in the sight of

heaven by their sins, were chased round the world by evil spirits until the time decreed was accomplished. Then they sank into dust and ashes, the lowest depth of existence. Next, in another beginning of existence they became clay and took the nature of stone and of minerals; and from thence they rose to become water, air and fire, floating in the cloud, rushing in the whirlwind, rolling in the thunder. After this they entered into vegetable existence, springing to life in grass and flowers, trees and shrubs. Ages on ages were consumed in these successive transformations; for in them units of time-reckoning might well be, not by revolutions of planets, but by the births and deaths of solar systems. The next change was into animal life, in which as beast, bird, reptile, fish and insect, in the waters, in the air, on the ground and underground, they pursue and are pursued, rend with tooth and claw and are rended, destroy and are destroyed, through countless æons. At last they are suffered to ascend into the rank of human beings once more. But their ascent there is step by step: they are first slaves undergoing unspeakable toils, privations and tortures, so that their life is a long longing to die; dying in full time, they commence life again in a higher rank, being free, but it is a hard life of toil, of poverty, of war, of dungeons, of bloody superstitions, of worship of idols, in abasement and ignorance. To them also in the end comes the release of death; then the final change ensues, and they enter the highest rank of mankind, becoming Israelites, the chosen people to whom has been given the promise of universal dominion. The end is accomplished: the long cycle of the travail of matter through eternity has reached its climax, having culminated in the highest specimen of mankind—a good Jew. See the grim irony of events! When Jesus Christ came, a Jew of the Jews, they rejected and crucified Him.

Let us turn back to the main line of our inquiry. It has been shown that the lesson of material continuity with progressive complication, which is taught by the ascent from simple binary compounds to ternary compounds, from ternary compounds to still more complex compounds, and from these to the exceeding complex composition of nerve-element,

is plainly taught also by the development of organic life. An organism and its medium, when they have reached a certain fitness of one to the other and hit upon the happy concurrence of conditions, combine, so to speak, to make a new start, the initial step of a more complex organism. This initial variation which, profiting by what is called natural selection, undergoes gradual development, is an original fact that we cannot explain. Call it an internal principle of evolution, if you will, though it is doubtful whether matters are made any more clear thereby. To call it an *accidental* variation is hardly well, since there is no such event as accident, and in any case that is ill called an accident which issues finally in such a definite and special product as a new organism: it is almost equivalent to calling man himself an accident. Natural selection affords us an explanation of the survival of the variation once it has been made, but no explanation of the organic start itself nor of its progressive increase. It is in the inmost depths of physiology, in the most intimate physico-chemical processes that take place between the internal properties of the organism and the external stimuli of the environment, that we must search for the origin of the initial variation and of its growth by exercise. All we know and understand at present is that it is the observed tendency of organic matter to break into varieties, thousands of which probably occur and come to naught, in the absence of fit surroundings to preserve them, for each one that survives and is fixed with the lapse of time. Everywhere we observe evidence of such variations: no two faces, no two voices, no two treads, no two objects in living nature are ever exactly alike; in the phenomena of heredity the operation of a law of variation is as manifest as the operation of the law of inheritance of like qualities. What wonder that such variations occur often in the unstable and extremely plastic substance of nascent organic matter?

The initial structure of the new variation is an embodiment of the special conditions of the environment, an organic involution of them, and is therefore prepared by its nature to flourish in similar fitting conditions; for as the

living particle, once formed, contains in itself and supplies the essential conditions of the transformation of suitable non-living matter into its kind, so this new embodiment contains in its structure and supplies in its function the essential conditions of a further increase, and grows aptly to the mode of its exercise. That is the real meaning of Lamarck's doctrine that the *want* or *need* generates the effort, and the effort or exercise the faculty. The first step once made, the initial combination of organism and medium, the increase will be comparatively easy, for here, as in morals, it is the first step only that costs; it will increase, by reason of its embodied conditions, in external surroundings that would not have been sufficient to generate it, although it will certainly perish in surroundings that are not adequately adapted to it; as a fire will go out when it has not proper fuel, or as a gill-breathing animal will expire in the air. Notwithstanding this advantage of intrinsic structural conditions, however, it is extremely probable that multitudes of variations are born only to fade timelessly, 'no sooner blown than blasted,' just as the great majority of all sorts of seeds come to naught; just as many bright thoughts not caught and fixed at the moment pass for ever; just as among thousands upon thousands of stars and planets one only perhaps here and there comes to aught. To infinite Power, with infinite time and infinite space at its disposal, it is manifestly no greater matter to waste planets than to waste seeds.

It is not a very profitable discussion whether function develops structure or structure develops function, as it is not a profitable discussion why the organism makes the first start of a new development which the surroundings afterwards nurse into completeness. Both questions seem to be based upon the notion of a living organism as an individuality that has existence apart from its medium. In reality it has nothing of the kind. We make the abstraction in thought, but there is no corresponding separation in nature. A similar discussion has been raised as to whether social morality is the basis of individual morality, or whether individual morality has preceded social morality; as if indi-

vidual morality could be at all except in relation to a social environment, or a society *be* without individuals. Morality would have no meaning to a man living alone on a planet which he had all to himself: he could not be virtuous there any more than a woman would be hysterical who was placed in similar circumstances; or than a sole Supreme Being who has the universe to Himself can be virtuous or vicious.

Let us endeavour to apprehend as closely as possible the formation of a new organic start. A structural variation appears, be it the most minutely initial imaginable. Certainly it could not, before it was formed, function as part of the organism, and must have preceded its function in the order of development, since function is the definite energy of structure of definite form; that form being itself the result of the combining properties of the simple and complex compounds that constitute the structure in their relations to the environment. The unloosing of the energies of the compounds by their decomposition and the unified action of the liberated energy, as determined by the *form* of structure, will be the function. On the other hand, it is a sure matter of daily observation that structure grows to the mode of its exercise, and wastes when it is not exercised—that is to say, that function develops structure in the line of its activity; a *plus* replacement of expended organic material being growth, a *minus* replacement thereof waste. Here, then, we are brought to a pretty pass, which looks very like an *impasse*. We may be permitted to ask ourselves, however, whether at bottom anything more wonderful has happened than happened when a new chemical compound, or an organic molecule, was formed for the first time, which has ever since increased and multiplied.

Nutrition is a succession of generations, and generation is fundamentally a continuance of nutrition. We need to get rid of the artificial separation that we make between organism and medium, and to cultivate the conception of an essential interaction. The proper influences or fitting coincidences of the medium are as essential a part of the constitution of the new structural start as are the intrinsic conditions or properties of the organic structure from which

it proceeds; it is indeed the material embodiment, in the most complex and concentrated form, of the intrinsic organic conditions and of the extrinsic conditions of the medium—an involution, so to speak, of the two complex factors. Always is it necessary to have *envelopment* before you can have *development*, to fold *in* before you can *unfold*. The smallest particle of protoplasm that ever came into being, came into being through the union of *immanent* and *influent* conditions, and it grew afterwards by the continuance of a similar process of combination under vastly more favourable auspices; but it was able to grow in that fashion from preceding protoplasm only because the latter carried incorporate in its nature, as immanent properties, the antecedent influent external conditions that were necessary to its first production. The exercise of function being the giving out or unloosing of those combined internal and external conditions, the unfolding from within, by a self-disintegration, of the coincident conditions within and without that combined in the first instance to form the new variation, these naturally promote further material embodiments—that is to say, further increase of structure. In regard of relative priority of appearance of structure and function then, the proper answer would perhaps be that the new function came first as the function of concurrent organism and medium, being more or less vague and tentative; and that the material embodiment in the initial variation, surviving by its fitness to the conditions, became the structural basis of definite, purposive, and less dependent function of the organism.

It is easier to entertain the general notion of a process of involution than it is to put forth an intelligible exposition of it. Making use of every aid, in order, if possible, to make the conception clear and definite, I would particularly point out that in the formation of the primitive organic particle, and in each successive formation of more complex organic matter, a process has taken place that at bottom is identical with what we see going on and exemplified now in every conscious mental acquisition. For what happens in this case? Observation of the new conditions that present themselves, and in due course adaptive reaction

to them; such process, ingoing and outgoing, being at the foundation of the faculties we call perception and judgment; so we make a veritable assimilation of them, and therein a gain to ourselves of mental faculty. The process is gradual and tentative at first, but it becomes exact and perfect by practice. Now the underlying condition of such acquired faculty or function certainly is an organic basis of gradually formed structure, the specialty of which structure is determined by, embodies, and signifies the composite result of the internally immanent and the special externally influent conditions. Thus conscious function helps to throw light upon the dark and hidden processes of purely organic function, for it is with the increments and developments of the simple organic particle as it is at bottom with our mental increments and developments.

The reaction of the simplest living matter to the external stimulus is simple and direct, but it is obvious that with each of those above-mentioned increments of gain, they being embodiments of simple reactions, the reaction becomes less direct and simple; and it is further obvious that with successive additions, especially when the additions are developments, the reaction becomes more and more circuitous and complicated; the determinants of action mainly within, the occasions without. The organism has become a magazine of embodied relations. In its structure are stored up potentially the multitudinous simple actions and reactions between organic substance and medium—ordered structuralisations that make its increasing complexity; they are there ready to unfold in energy on the occasion of a slight and very indirect stimulus; not otherwise than as the mind of a man of the world contains the gains of the experience by which he has profited on his way through life, and holds them in store ready for use when the occasion demands. A complex organism is the embodiment of such involutions from the beginning of life on earth to the beginning of its life. The spontaneities and autonomies, so-called, of organic structures and beings have been thus fashioned. If traced back to their genesis, if undone, so to speak, in the reverse order in which they were done, the research would bring us at last

to the simple fact of the primitive action and reaction. In the least portion of an organic structure the immediate relation is immanent; it can only be directly and openly dispensed with on any occasion of function, because it is, so to speak, capitalised there; and it is by reason of such funded stores that an external stimulus that otherwise might seem slight and inadequate is adequate to produce large effects.

The tendency at the present day is perhaps to lay undue stress on the environment as cause of the variations that take place in an organism, and in some respects the term 'natural selection' may have helped to enhance the tendency; for the common notion of natural selection is apt to be that of an external active power which seizes on the organism and compels it to *adapt* itself in special ways. In reality, of course, natural selection merely expresses the fact that the organism survives which has made the fitting adaptation; and it is exactly the *adaptation* that needs to be explained. Indeed, the word adaptation itself is one which, if used by theologians, would probably be condemned as being of anthropomorphic taint, and implying the application of conscious experience of human action to material events. To search out and discover the exact physico-chemical conditions and events of a particular process of adaptation—that is the real problem; and the solution of it would be of more scientific value than volumes of vague disquisition concerning adaptation. It is necessary, in this relation, to be on guard against falling into the easy delusion that the application of new terms to old facts is an addition to our knowledge of the facts: evolution and environment, for example, are large words of swelling sound that seem to be charged with big meaning, but by themselves they really explain no more than the old expressions of the *becoming* of things amidst the things *around* them. The question is what are the exact facts that such general words signify; and here it must be confessed that an aching void of meaning often appears.¹

¹ Darwin established the doctrine of evolution on a scientific basis by infinitely patient labour of observation and thought; but it has been the fate of his discovery, as it is the fate of most epoch-marking discoveries, to be

If a complex organism embodies in its nature the environments of all organism that come in the order of development between it and the simplest form of organism—if it be, so to say, a magazine of such involutions—so that in dealing with its external relations and internal correlations we are dealing with the historical incorporation of a multitude of past environments, it is obvious that a general statement of the action of the environment to produce a variation is too vague to have the smallest scientific value. Suppose some thousands of chemical compounds mixed together in states of highly unstable equilibrium, but having the external formal equilibrium of an organism; then suppose some impulse from without to upset the unstable equilibrium, so that the compounds go instantly into a turmoil of decomposing, recombining and new compounding, some in more, others in less stable combinations; what an empty pretence of information it would be to say that the possible multitude of ensuing new combinations and the consequent modification of the external relations of the formal whole were due, in any direct sense, to the influence of the environment! And yet we have made the supposition of a state of things falling far short of that which prevails in a complex organism; for such organism is a formal equilibrium of countless multitudes of internal molecular motions, that are ever active, changing every moment, combining and separating, neutralising and reinforcing, as complex and incalculable as the multitudinous ripples of ocean. The immediate relations of organism and environment may perhaps be the least part of our difficulties, when we have made anything of it in the way of exact knowledge; we shall have to inquire into the complex and intimate correlations of its several parts and functions, whereby variations of one part entail important and far-reaching variations in other parts, without any direct action of the environment. Moreover,

spun into many vain and vapid theories by speculative disciples, who, not applying themselves to patient intercourse with facts, use a few ill-observed and inadequately apprehended facts as the occasions of speculative applications of the doctrine; whereby it naturally does not fail to happen that everything in the world is capable of being explained by it.

in this complicated business it is plain that the adaptation of an organism to its present environment may be not a useful adaptation of the organism as a whole, but the particular adaptation of a variation of it, the development whereof may entail correlated inter-adjusting changes in it that are not progressions but retrogressions; not really helpful to the whole, but positively hurtful to it as a whole, and so calculated to arrest its higher development or to promote its actual degeneration.

In this relation, we shall do well to reflect on the different organic stages through which, in its course of embryonic development, the ovum of one of the higher animals passes from a seemingly homogeneous and scarcely visible substance to the complex structure of its mature form, the environment all the while being the same. Its successive variations do not owe much apparently in those circumstances to natural selection, rather would they appear to make their own election. No doubt development in this case repeats the different stages of descent when the environment was different, and the successive stages thereof are so many evolutions of very complex involutions that have been accomplished in the successions of the ages; but that does not alter the fact that the very remarkable evolution of the microscopic germ is not due to *its* environment, but to occult qualities in itself, to its intrinsic essence. In its nature is inscribed the architectural *plan* or *form* of its development.

The lesson which the example teaches is that always the initial variation of an organism, which we call accidental because its causes are unknown, and the form of development of the variation, are in the main the direct inspiration of the organism and essentially independent of its present environment. Without doubt the fitting external conditions are necessary to its survival and growth, but they are not determinant of its origin. The material of the difference of mass between the acorn and the oak obviously comes from without—from the soil and from the atmosphere; but it is the acorn that contains the determining conditions by which this matter has been transmuted into living struc-

ture, as well as the directing *form* after which it has been constrained to fashion itself—not otherwise than as the form-following repair of a crystal takes place in a suitable solution—and by which always the tree is forbidden to grow up unto heaven. And we have to note this: that not only has the transmuting power been multiplied with the continual conversions of non-living into living matter, but that each new element thus added as vital has been literally *informed* by the pre-existing *form*, and so transformed as to become a new store of form. In like manner, a variation occurring in each of two differently constituted organisms placed in the same surroundings, in which both were adapted to live, would not be of the same kind and take the same course of development in each case—would not, in fact, grow by minute increments into the same kind of new organ. Each variation would be *informed* by the special antecedents in the organism from which it proceeded, being the expression of the correlation of its parts, and carrying in itself the formal plan of its future development: would nowise be moulded helplessly by circumstances, but would mould circumstances helpfully. Natural selection gives account only of the *quantitative* increase, it gives no account whatever of the *qualitative* nature of the new variation.

Thus much then by way of showing that in virtue of the autonomy of an organism there is what we may call an organic spontaneity manifesting itself in variations that are certainly not due to the surroundings, but which must, in order to survive, meet with fit surroundings. The bad side of this tendency to variation is exemplified by the appearance of morbid growths and other diseased products in the organism, which, if the medium be fit, increase, but, if unfit, dwindle and die; and the important co-operation of the medium is well shown further by the way in which infectious germs are noxious or innocuous, according to its states, and more especially by the way in which some such germs may be cultivated artificially into virulence or into innocence outside the body, according to the media in which they are placed.

Nor is it to be overlooked in this connection that a like

process of variation is manifest in mental operations, and is at the foundation of the development of new ideas. Given the basis of good mental nutrition and respiration in a suitable social atmosphere, and there take place from time to time spontaneous variations testifying to the autonomy of the organism. It is mental productivity as distinguished from reproductivity; and it naturally diminishes as age advances, until it is entirely lost in old persons, because with the increasing failure of their vital powers there is no superfluous nutrition and no exuberant energy to make a variation. The most striking instance of productivity in the organic sphere and in its intimately related mental sphere is seen in the nature and operation of the reproductive impulse, which in the individual is truly a sort of organic spontaneity; not certainly provoked by the sensual pleasure that accompanies its gratification, for plants practise sexual congress without having any sensation, and animals and human beings accomplish it before they know the pleasure it brings. Meanwhile the gratification that attends its function is a signal justification of its strong and blind impulse; a proof also, since no two beings are exactly alike, how deep in the heart of nature lies not only the propagation of life but also the production of variations in its propagation.

The tendency to variation in organic beings is most manifest in man, who for the present marks the organic culmination of nature, and most manifest in his highest developments—that is, in the functions of his intellect and imagination; though it may be a question whether in his physical characters the tendency be not rather to greater uniformity, as the conditions of life on earth are becoming more alike. Through the great changes which he has made on its surface in order to adapt it to his wants, and through the dominating and unquestioned ascendancy which he has long conquered for himself, all other branches of the animal kingdom have had their development checked and the forms thereof stereotyped in a sterile immobility. The energies of organic becoming have been collected and absorbed into the channel of human becoming. Any intellectual or moral

progress on the part of animals, or any advance on their remarkable instincts—which in the ingenious adaptations of means to end stand so strangely apart from the poor and unprogressive character of their present intelligence, like stereotyped survivals of a period of development when they possessed higher adaptive powers than they do now—is rendered impossible. Only in those animals that are used by man to subserve his wants, and cultivated by him for the purpose, is there any notable tendency to survival and variation. There is no animal not domestic but flies instantly from his presence: ages of pursuit and persecution have made that the urgent self-conservative instinct of every creature that shares the earth with him. The wild animals, like wild men, are indeed fast coming to find themselves without a medium in which they can survive, since it is impossible for them to accommodate themselves to the medium that man is making of the earth, almost all parts of which he now either cultivates for his use or traverses for his needs or pleasure. They survive as antique monuments of past climates, past soils, past conditions of the earth at past geological epochs, of which in their day and generation they were doubtless the best outcome; nay, perhaps, each the best and most beautiful product, if considered in relation to its proper medium, howbeit that in a foreign medium and age some of them appear huge monstrosities and anachronisms. That they have thus lived on into an epoch of the world which has long outgrown them, and has no appreciation of their beauty and fitness, having a quite special human standard of its own, is their misfortune. Happily for them they are not disquieted with aspirations for ideals beyond them; each kind holds to its own standard; and the rhinoceros wisely prefers his ugly and unwieldy consort to the beauty and the proportions of the Venus de Medici.

It is not only that the dominating ascendancy of man prevents progress in the animals below him that are not moulded by him for his uses, but it tends to produce retrogression in them. If one of two animals of the same kind or of nearly allied kinds undergoes a variation that is useful

to it in the struggle for existence, and prospers by reason of it, the advantage it has gained does not count to the other simply as the deprivation of an advantage, but it is a positive disadvantage to it; inasmuch as, having a rival that takes and occupies the higher place, it is now driven to live a lower life, to lose its organic aspirations, and by degrees to undergo degradation. The conditions of its existence, instead of being open and propitious to development on its part, are now made unpropitious and positively antagonistic by the repressive presence of its successful competitor. Let us suppose, by way of illustration, the instances of man and his monkey-like next-of-kin, at the time when, descended from a common stem, their ways began to diverge. It is evident that when the legs came to be used exclusively for locomotion instead of the four limbs, and thereby the hands were left free for grasping purposes, for contrivance, for defence, for gestures of expression, and for other special uses, there would not only be the positive gain of *hands* to those who had taken this path of progress; but those who had not done so, but still continued to employ their hands in climbing, would become more and more dependent upon that use of them, in order to escape the competing hostility of the superior animal now in possession of the best places, and so to survive. Thus the locomotive uses of the arms would be perpetuated and even augmented, and the higher uses of them put a still greater distance away; and thus likewise in other respects each *more* in the special progress of man would be a *more* in the special path of the monkey's diverging progress. The same law reigns in the struggle for existence among the races of men, leading to the degeneration and extinction of the inferior races, and will continue to do so till it come to pass, if it ever shall come to pass, that the struggle for existence is checked and controlled by the growth and spread of the sentiment of universal brotherhood, and so the struggle become one not of individual against individual, nor of race against race, but one of the whole human race, compact in solidarity of feeling and aim, against the obstacles that hinder its progress towards higher and higher ideals.

SECTION IV.

MENTAL EVOLUTION AND THE SOCIAL MEDIUM.

IN the social development of mankind we notice and mark the same sort of *nisus* of evolution manifest in the same kind of process of more and more complex *becoming* that has gone on in inorganic nature and in the development of organic life. It is indeed because of the necessity of carrying the conception into the higher region of social evolution, and of making use of it there, that I have lingered upon it at length and laboured to make its nature plain. To realise the full meaning of physiological facts, to get clear and exact notions of them in their mental relations, is a difficult business, and one which those who base psychology on the method of introspection seem to be unable to accomplish; it is impossible for them so much as to grasp adequately the conception of a living organism, because of their want of physiological training. They persuade themselves they get it from text-books, when they only get there much such a vague and inadequate conception as a blind man would get of colours from a description of them; and in face of the fruitful facts and conceptions which present themselves, but which they cannot assimilate vitally, they go on repeating the empty phrases of their schools. Their real relation to physiology is this: they demoralise by their psychological spirit what they appropriate from it, and they fail to impregnate their psychology with its spirit. Tell them that the social feeling operates in a civilised society to make a person feel the obligation to do right, and they protest against the statement as absurd, because they can think of such influence only as deliberative, reasoned, prospective, self-regarding; they cannot conceive that it should be, as it often is, immediate, urgent, self-denying, instinctive. Were they to be at the pains to learn and grasp adequately the physiological conception of an organism and of the vital relations therein of the parts to the whole and of the whole to the parts, whereby, all being members of one body and

members one of another, the whole works in each living element and each living element in the whole, they would experience no such difficulty; for they would then comprehend that an individual can no more help feeling the constant presence and influence of the social medium in which, for which, and by which he lives, and of responding to it, than an organic element can help feeling the presence and influence of the organism to which it belongs. “

Reflecting on the admirable consensus of parts in the physiological organism, whereby so many and diverse elements work together in the bonds of peace and in unity of spirit for the good of the whole, may one not propound incidentally this hypothesis—namely, that each element contains in itself, in some secret and incomprehensible way, an abstract essence of the whole? For if a minute substance like the sperm-cell or germ-cell contains in itself the essential characters of every organic element of the body from which it proceeds, as it plainly does; and if nutrition is at bottom a continuous generation, as it virtually is; why may not each specific element of the body contain in abstract, in its innermost nature, the essential characters of all the diverse elements that are organically united to form the whole? So perhaps might we explain, among other things, the singular occurrence, in morbid cysts in the breasts and other parts of the body, of some of the embryonic structures that are ordinarily met with only as products of normal embryonic development in the womb. It is not in that case that a nascent germ- or sperm-cell travels to these distant regions and develops there, but that the elements of tissue in these regions have had awakened in them the dormant properties which they possess in common with the germ- and the sperm-cell.

In the progress of social evolution new starts or variations occur, just as organic starts occur, and they are in like manner the results of new combinations between the conditions immanent in the individual and the coincident apt conditions of the social medium—the intrinsic and the influential conditions. Already have we seen how an individual develops a variation when he takes the tone of manner and

feeling and thought of a particular sect of society in which he lives. Not with deliberate method but almost insensibly: he observes more or less consciously in order to act; by acting habitually after a certain fashion, he becomes; and the result of such becoming is that he feels, thinks and is as one of the sect. Thenceforth he is at home there, because he responds congenially to the impressions of the circle, and easily gives out in function what he has embodied in structure—that is to say, displays naturally in feeling, thought and conduct that which he has made part of his character. But when a new thought is struck out for the first time in the course of human progress, obviously no such conscious or semi-conscious imitation is possible, since there is nothing to imitate; it is a new thing, an initial variation of the social organism, which cannot have been learnt anywhere. Whence comes it? If one thing is shown plainly by observation of the course of development of human thought, it is that a new thought is in the air, so to speak, before it is apprehended and expressed, and that the aptly constituted and happily placed individual becomes the organ of it; he makes explicit that which was implicit in the instinctive pulses of thought and feeling around him, which was waiting in tension, as it were, to burst into blossom, and which perhaps had already made some obscure and abortive attempts to do so. He is the first bud to blossom successfully on a branch where others, moved by a common pulse of life, are ready to blossom also. Hence it comes to pass that a new thought is seldom, if ever, evolved without more persons than one having had dim intimations or more or less distinct conceptions of it, and that endless wranglings concerning the honour of priority take place among those who, ignoring their intellectual parentage and social inspiration, flatter themselves they have any special merit in the matter.

Good proof of the essential dependence upon the medium, as well for its survival as for its origin, is afforded by the fate which befalls a new idea that is put forth before its time—that is to say, before the social medium is fitted to entertain it; when perhaps the very language in which it may express itself is wanting, and a fit language for it has yet to be framed

and learnt; for it produces no effect, comes into the world almost stillborn, is neglected and soon forgotten, and has to be rethought and proclaimed afresh years or generations afterwards. Meanwhile the neglected author of the premature birth pays the penalty of being in advance of his age by being thought a speculative visionary while he lives, and afterwards, when his idea has gained acceptance on the authority of some foster-parent, by being acknowledged to have made a lucky guess, for which it would be absurd to award him any credit; all the real merit of the discovery being assigned to him who proclaimed it at a time when it met with acceptance, or who so enforced attention to it by elaborate demonstration and by much insistence that all persons with any pretence to knowledge were forced to take sides either for or against it. Seldom, if ever, has there been a discovery made that has not been thus anticipated; in fact it would be no exaggeration to say that a new thought cannot be very original if it gets itself soon accepted; and it is not to be doubted that as with organic variations, so with the organs of new ideas, many perish before the one survives to bear fruit. A well-worn saying respecting a scientific discovery is that it goes through three stages--the first stage, when it is ridiculed as absurd; the second, when it is denounced as contrary to religion; and the third, when it is declared to have nothing new in it. Perhaps a truer statement of the stages of its development would be--first, that in which it is announced in vague outline and despised as vain speculation; the second, when it is proved and established by elaborate observation and reasoning; and the third, when it is appropriated by the speculative philosophers and prostituted to their theoretical uses.

The wonder perhaps is that a new idea should ever be born before its due time--that the social organism should ever develop the initial organ before it has reached the fitting stage of evolution to maintain it. Somehow, in the continuous flux of events there has happened the favourable coincidence of external conditions and of a happily constituted individual, the result of the concurrence being a new birth of thought; while it is only after many years that the

general level of knowledge has been so raised as to admit of the promulgation of the discovery and of its simultaneous verification. Time and chance happen in all things; wherefore the ancients rightly built altars and dedicated temples to Fortune. A great character in a mean sphere shall never be heard of beyond his village, though he may be a notable figure there, while the qualities of a poorer character on a large stage shall cause his name to echo through human history. The jealousies of Augustus Cæsar and Mark Antony were war throughout the then known world: the jealousies of two men of equal natural capacities to those of Augustus Cæsar and Mark Antony may be a quarrel in a country alehouse. The finest tree of the forest is the product of a good seed falling on good ground in propitious surroundings, but where are the thousand seeds that perished the very year when it germinated, every one of which would have produced as fine a tree as it, had the same good fortune befallen them? Has not many an inglorious potential Newton gazed at the stars and only thought of them, if he has thought of them at all, as a means of lighting him home at night? Those who see not a miraculous but a natural event in the birth and progress of Christianity will acknowledge that, had its founder been born two hundred years before he was born, at a time when his countrymen were not waiting in earnest expectation of the coming of a redeemer of Israel, and before the commencing dissolution of the Roman Empire yielded a soil excellently fit for its growth, he would have lived and died in a mean obscurity. Had there been no French revolution, and had Napoleon not chanced to come in the slackening stream of it, he might well have ended his days obscurely, a moody and discontented captain of artillery, as men of equal capacity to his have very likely often done. For my part, I have certainly known in country villages men of more native power of intellect, of larger humour, of more quietly heroic self-suppression, of more silent grandeur of character, of more solid human qualities, than any distinguished man that I have ever met with; he, for the most part, is actually a signally self-conscious and attenuated person, the potential gold of

him beaten out to the finest possible display, and much demoralised, whether as politician, preacher, literary or scientific man, by his constant appeals to public approbation.

Let it be supposed that by some singular chance an individual of an extraordinary genius is born among a tribe of low savages, it is pretty certain that he would not be a great engineer, nor a great mathematician, nor a great moralist; the antecedent elements or conditions of such a product of civilisation being entirely wanting in the low social organisation, it could not be a product of it; and he would apply his superior powers in order to excel in those arts of oratory in council, or in that skill and valour in battle, in which it was the tribal ambition and the tribal glory to excel. Nor would the moral approbation of conscience, individual and tribal, fail to be measured by the number of scalps that he brought home. Were a low savage transplanted to a civilised country, it is no less certain that he would fail to take root there; though he might be well constituted after his kind, he would hardly have more power of successful adjustment to the complex conditions of his surroundings than a natural imbecile would have; the product of a lower and much simpler social organisation, he has neither acquired for himself nor inherited from his ancestors the organic involution of the more complex social conditions which would render him capable of feeling them and of adapting himself to them. He would be sadly out of place—without habits, and without the sensibilities and faculties to acquire them. The Sermon on the Mount would not sensibly affect a native Andaman islander, nor would Kant's categorical moral imperative, in spite of its *à priori* character and innate sanction, have much authority in the conscience of an Iroquois Indian. We may, if we choose, suppose the opposite case of a civilised youth transplanted into the midst of a tribe of low savages and compelled to end his days among them, without ever having intercourse with any beings higher than they: how long would he preserve his civilised feelings and habits, with nothing in his surroundings to elicit their exercise, to foster their growth, to maintain their vitality? He would dwindle and die morally and intellectually, as a gardener's

slip will die when it is not planted in a suitable soil or grafted in a suitable structure, though, like the slip, he would grow on his native stem or if planted in a fitting medium.

One hardly realises for the most part to what singular fashions of thought and feeling human character may be bent by the training of special circumstances and habits: not only how custom dominates in belief and practice, but how it operates in a quasi-mechanical way to determine even modes of sensibility. The horror felt by a savage at the spectacle of a human sacrifice is less than that which would be felt by a civilised person who was not a butcher at the spectacle of the slaughter of an ox; and I dare say that the children of the village would dance with pleasure and imitate the victim's cries, as in an English village they imitate with delight the squeals of a pig that is being killed. Would it have been believed possible, if history had not authenticated the fact, that there ever were nations which deemed it a mark of piety and affection to kill and eat their aged fathers? See how the ignorant savage, taken prisoner by his enemy, endures the menaces and tortures to which he is subjected, without uttering a single sigh or cry for mercy, or making the least sign of submission; with what an invincible courage he braves his tormentors, railing at them and defying them to do their worst, reproaching them with their impotence to extract one cry of pain, exulting and insulting over them in boasts of the greater tortures which he has made their people suffer. All this because the custom of tribal belief, deeming it the glory of a death by torture to triumph in such stoical endurance, has trained his nature into such a development as, when stimulated to an ecstatic transport, to vanquish its natural sensibilities.

It is difficult to repel an intruding suspicion or distrust of the stability of anything based in human progress, when one considers the grossly inconsistent belief and the signal moral insensibilities in particular relations that exist, sometimes without the least reprobation, and even without a perception of their inconsistent character, in communities and individuals that have reached a high state of general intelligence and

moral feeling. So impossible is it to say of any qualities, however incompatible, that they may not coexist in the same individual, that one might suppose a being compounded of entirely opposite qualities and believe he would somehow contrive to reconcile them. Certainly we shall find a man sometimes to be one person in one set of circumstances, and quite another person, displaying different habits of thought, feeling and conduct, in another set of circumstances; it is with him as it is with a boy when he is at school, and when he is home for the holidays, who, without knowing it, falls under different habits of thought and feeling instantly the change is made, and in one state can hardly realise himself thinking and feeling as he does in the other. Reflect on the gross examples among all nations of superstitious credulity contradicting the earliest and most constant teachings of daily experience and the plainest dictates of morality; on the most devilish tortures that human ingenuity could devise inflicted by devout Christians on their fellow-believers of a minutely different shade of faith; on the inculcation of duelling as a high code of honour in the same breath with a devout assent to the commandment, 'Thou shalt not kill;' on slaveholding and its attendant horrors sanctioned complacently by pious men and kind-hearted fathers of families, without the least suspicion of any wrong on their part; on wars and oppressions undertaken by Christian rulers and blessed by the ministers of a gospel of peace and brotherly love; on the prayers and thanksgivings to Almighty God offered up by these same ministers in gratitude for triumphant slaughter; on hell and its everlasting torments proclaimed the eternal portion of all but a select minority of the human race, and by them contemplated with pious equanimity, if not actually as a reflex augmentation, by contrast, of their unspeakable felicity.¹ Every one is penetrated and intoned,

¹ Take a recent example furnished by one of the best known popular preachers of the day, and a leading light among the Nonconformists. In a letter to the hon. sec. of a branch of the Antivivisection Society, he says: 'I loathe the subject intensely, and I am unable to imagine the process by which men of education, or men at all, bring themselves to perform such cruelties.' In a sermon on the 'Resurrection of the Dead,' an approval of the torture breeds another kind of eloquence. 'When thou diest thy soul

so to speak, by the social atmosphere of the particular medium in which he lives, and in the end so assimilates it, makes it so essential a part of himself, that he is insensible to moral relations that are not embedded in it, and feels no repugnance to immoral procedures which it sanctions. Fortunate indeed is it that there is a gradual development of the social organism independent of the foresight and the conscious efforts of individuals, a stream of tendency outside their premeditations and predeterminations; that nourished by a silent process of evolution the travailing organism displays the deep impulse of its being by putting forth of its own motion, at the proper stage of its growth, the initial germ of the fitting organ to carry it to a higher stage of evolution. 'Know thyself,' says the moralist: to do that, says philosophy, is to know humanity, past and present, working in, for, and by thee.

That the social medium has been created for man by humanity, as the blood is formed by the tissues for the organism, is a fact which we cannot keep too clearly in mind when we are considering its character and influence. As soon as he enters it, he finds himself surrounded with the fruits of the long travail of humanity in the most easily assimilable forms: a language that embodies its social evolution; all the various appliances of the arts and sciences that have been tediously acquired in the succession of ages; commerce and its complicated monetary means for the interchange of commodities; the surface of the earth as it has been laboriously adapted to his uses by countless generations of mankind; human beings of his own kind, each of whom has implicit in his nature the experiences of the race from its beginning, and so appeals, as well by the silent eloquence of look and gesture as by the articulate word, to the like implicit contents of his nature. With man there is a *con-*

will be tormented alone, that will be a hell for it; but at the Day of Judgment thy body will join thy soul, and then thou wilt have twin hells—thy soul sweating drops of blood, and thy body suffused with agony. In fire, exactly like that which we have on earth, thy body will lie, asbestos-like, for ever unconsumed—all thy veins roads for the feet of pain to travel on, every nerve a string on which the devil shall for ever play his diabolical tune of hell's unutterable lament.'

tinuity, with animals a *succession* only, through the ages; and so while the human infant inherits the gains of the race's experience, the rhinoceros has profited little or nothing by the experiences of its race for the last three thousand years. In order to have a scientific conception of the origin and development of human society, however, we ought to observe the simplest social facts as they present themselves in nature, and to reflect upon them in their objective aspects, not as they present themselves in the light of the subjective experience of a high social development; being well on guard not to bias observation, or to prejudge them in any way, by the assumption of a supernatural inspiration or other mysterious initial principle. Now the facts are that social union exists in creatures far below man in the scale of animal life—notably, for example, in the bees and in the ants. The ants have their slaves, their workers, their warriors, their milch-cows, or rather milch-lice; their store-houses of winter grain, and, as some observers imagine, their places of burial and their planted fields; their disciplined industry, their methodical wars, their admirable inter-communications and co-operations in difficulties and dangers. Indeed, we might well ask, as Celsus asked long ago, 'if any one looked down from heaven upon earth, what difference would he perceive between the works of men and those of bees?' This he would perceive, that neither politician, nor philosopher, nor human labourer of any sort, be he the busiest imaginable, pursues his work with the persevering industry and intense singleness of purpose displayed by one of these little creatures; which, moreover, does not make any claim on the admiration of its kind while it is doing its work, nor look for any memorial of itself after its life-work is done. In this connection let this pregnant reflection not escape notice—that the architectural works of the ant and the bee, like the wonderful webs of the spider, are constructive or creative works, no less so than a lace woven or than a palace built by human hands; they are as truly works of art as a poem or a picture; and if they had been done by man, we should consider them the products of a creative imagination, and admire them as excellent works of that noblest faculty.

But in the ant they are not works of imagination in the human sense of the term; they are the work of organic matter of a certain complexity of nature in a certain structural form; and what they prove is that an organic body by itself, without help of mind, is capable, in its degree, of doing that for which we think it necessary in human doings to invoke the conscious function of mind. In like manner, the conclusion we ought to draw from the social life of ants and bees is not that human society, consciously pre-ordained or divinely inspired, is the natural thing, and that these communities of ants and bees are an extraordinary and unaccountable freak of nature or caprice of Deity, but simply that there has been a natural tendency to the formation of social aggregations by organic beings of a certain complexity under certain conditions of existence; that the disposition to co-operation in social union is an ultimate and essential fact of organic development of certain kinds—just as much so as any complex chemical combination or the formation of a complex organic molecule. If that be so, the right course is to apprehend the fact distinctly, and to use it in our examination of the beginnings of human society, not to apply to the social phenomena of ants and bees conceptions derived from the workings of man's intelligence in the events of his social state.

As a matter of fact, human beings do habitually construct imaginatively, without consciously pre-ordaining what they will construct, for imagination works independently of consciousness and will, its results only being so illumined; indeed, there is not a faculty of mind which, though they began by using it consciously, they do not, after habitual practice, exercise unconsciously. By continual repetitions a sensation becomes less conscious, till, having become part of our habitual relations, it is hardly sensation at all: we do not, for example, ordinarily feel the presence of an artificial tooth which we have long had, nor the friction of the clothes which we daily wear. But the impression which has lost its distinctly conscious character as a sensation has then become a *want* or *need*, so that the absence of it is felt as the discomfort of something wanting; it has been so incorporate

in our nature that its removal leaves a sort of rent or wound in our mental being. In like manner, custom dulls perceptive consciousness, till perception becomes almost or quite automatic; we practise it habitually in regard to familiar objects, without consciousness of what we are doing, and experience the greatest difficulty in the world to go outside the path of habit; wherefore it is that, bound to the tracks of habit, we fail to perceive new facts that lie close at hand, and miss for years the most obvious discoveries which they suggest. In these habitual perceptions men are scarcely less automatic than are ants and bees in their perceptions and acts. Desire again, intense as it is in the first instance, becomes automatic by habitual repetition; whence it notably happens that the end desired is lost sight of in the means adopted to attain it, that which was means coming to be desired as end; and afterwards, when prolonged repetition has made this pursuit the habit of a life, even the consciousness of the secondary end disappears, being transformed into the need or necessity of an habitual activity. Thus we see man brought, in all the relations of his habitual mental activity, to automatic states very like those of the ants and bees, and find it, if we attempt the task, almost as difficult a business to move him out of them as it is for these creatures to go outside the range of their machine-like doings: the moral of the whole matter being that most men eventually are little more than machines, whose sayings and doings from day to day may be predicted with as much certainty as the cries and doings of a parrot. Organisation proves itself capable of doing in them that which it does by itself in the ant or bee.

Perhaps it will be asked how it is, if organisation by itself can do these wonderful things, and if there is a natural tendency in certain kinds of organic beings to form social aggregations, that many more societies like those of bees and ants have not been formed. The answer is that it was impossible they should be formed, or, if formed, should survive, when all the social tendencies of organic matter had been concentrated in man. Once he had formed society, he checked by his dominating ascendancy that social evolu-

tion in other directions which, but for his appearance on earth, might have gone on to results we cannot imagine, and for aught we know may be going on now in some other planet. In all directions the lower animals found themselves checked and pursued, their societies disintegrated, and themselves destroyed by the higher animal who, strong in social union, modified the whole surface of the earth to his uses, and sacrificed to his services, to his clothing, to his ornaments, to his appetites, to his destructive propensities, every kind of creature over which he had been given dominion. Had one or two of the larger species of animals, such as the lion and the elephant, formed societies, like bees, it might have gone hard with man's dominion and even his existence on earth. Why they did not, and why bluebottles have not formed societies, like bees, are questions that ambitious sociologists might perhaps usefully apply themselves to answer.

Meanwhile, we may suppose that the societies of ants have survived as lessons of what might have taken place in other animals under more favourable auspices, and that their social union became an actuality of organic development, instead of being arrested as a possibility only, by reason of their burrowing habits in the construction of their habitations, of the smallness of their ingeniously constructed bodies, of their tenacious industry, of their prolific natures, of their numbers, and of the strength of their social union. And if we take leave to indulge still more fanciful notions, we may suppose again that the superiority of ants over bees in social evolution is owing to the fact that, being for the most part without wings, and so constrained to a closer and more sternly earnest converse with their more limited and less varied surroundings, they acquired a serious, patient, persevering, and diligent character, rather than a light and volatile disposition; not otherwise than as the inhabitants of northern and temperate climes, forced to gain their means of subsistence and comfort by stern struggles with nature, and so to develop understanding by intending their minds to its laws, have been made more earnest, industrious, practical, and inventive than the inhabitants of tropical

regions, where the luxuriance of nature favours indolence and frivolity. The advantage of wings has not been an intellectual advantage to the beings that possess them.

Whatever its cause, the existence of a strong social sense in ants cannot well be disputed. Moreover, they have attained to a pretty complex society without, so far as we know, the events that have been necessary to bring human beings to their social state—without a fall from happiness because of eating a forbidden grain, without the necessity of an atonement, without supernatural intervention of any sort. Have they perhaps some vague religious sentiment? At the first blush it is a question that appears grossly absurd; and yet it is not inconceivable that creatures which possess such a good foundation of moral sense as they manifestly do, have some dim glimmering or quivering in them of that which passes in human beings as religious sentiment. A vague awe they may have of a vast and overwhelming environment which, in the to them inapprehensible form of an elephant's foot or other such huge, unknown, irresistible body, can crush them into instant nothingness; and perhaps it was a vague awe of that kind which, by a steady repression of the egoistic and by a fostering of the altruistic element, served to constrain them into social union. The minutely and marvellously organised matter of their little bodies might display a sort of religious instinct without a religious consciousness, as it displays productive imagination without imagining, and social feeling without consciousness of citizenship; for the ant's State is not, any more than the human State, founded on explicit theory and held together by consciously elaborated principles.

SECTION V.

THE SOCIAL FUSION OF EGOISMS.

IT is certainly impossible to account for the social sense in man, in the sense of explaining *why* it is what it is: we might as well ask why sexual sensibility is what it is, or why any other special sense is special. The example of the ants shows us that we need not look for its origin in the deliberate operations of a pre-ordaining conscious intelligence of man, or in any special divine interposition on his behalf. That man is a social being is a fundamental, ultimate fact of observation; we perceive it in the social tendency which he has shown, independently, in different parts of the earth in all ages; a tendency which has forced him into simple social union in the first instance, and afterwards in succession into higher and more complex unions, against his strong resistance and in spite of his efforts to remain separate. It is the all-mightiness of the whole dominating the particular desires and wills of the part. Nothing is more remarkable than the way in which he has been made social in spite of himself, by the repression of egoistic passions opposing themselves violently to the union of individuals, of tribal egoisms and antipathies opposing themselves to the consolidation of tribes into a nation, of national egoisms and antipathies opposing themselves to the confederation of mankind. By blood and iron has the welding work been done, in obedience to a stronger impulse than human passions could counteract.

So soon, however, as men had united to form a society, so soon would a social sense inevitably be generated; its occurrence in the circumstances of such co-operation is a simple and ultimate fact of nature. A society without social feeling would be a contradiction in essence. This reflection we may not inaptly make here: that just as simpler chemical compounds are combined into a more complex compound, losing by such combination their own special properties, nay rather having these suppressed properties constrained to minister

to its maintenance and transformed into the properties which it displays ; so the egoistic passions and desires of the individual are combined and fused and utilised in the social state to generate the common life and to minister to the common weal of the community, losing their specific qualities in the operations by which their social transformation is effected. Egoism comprises the sum of inclinations that aim at purely personal gratification, each of these inclinations having its particular gratification ; and the further we go back in civilisation the greater is the predominance which these egoistic impulses have. If we could conceive an individual isolated and entirely alone in the world he would be a perfect egoist. But when the egoisms of two individuals who must live together meet, then the necessity to bear and forbear is instantly made evident.

Let us imagine various chemical bodies with their specific energies to be brought together and thereupon immensely compressed or constrained into a certain material mould or form ; it is obvious that unless the energies entirely paralyse one another—which, since energy is indestructible, cannot be—they must produce, in consequence of their interactions of affinity and repulsion, a resulting energy that is not in the least like any of them. So likewise is it with the social combinations of individual egoistic desires and energies. Their antagonisms entail modifications and neutralisations in the forms of tolerances, compromises, forbearances, do-as-you-would-be-done-by obligations, and the like ; and the union of suspended antagonisms, in order to the defensive or offensive action of the two persons against other persons, generates agreement in aim and means, and sympathy of thought and feeling. If they are not to be mutually annihilatory, individual aggregates of egoistic energies must so combine—first into families, and then into tribes ; thereupon families or tribes are pressed or welded into larger unions by the antagonisms of similar complex aggregates in hostile face of them ; and so it comes socially to pass that atoms unite to become molecules, as it were, and these again to become more complex molecules, by the concentrating pressure of surrounding antagonisms forcing repulsions into

affinities. So solves itself the problem how out of seemingly irreconcilable egoisms to make altruism. Abstract virtue is virtue without contents; the contents of actual virtue are that which is not virtue; the word signifies nothing except by implication of its opposite—vice. For that reason we rightly do not call God virtuous. Everywhere we see the difference of the properties of the whole from the properties of the organic factors: the social community is something more than a juxtaposition or aggregation of individuals; the State quite another thing than an aggregation of local communities; the national character or consciousness something different from the aggregation of many assemblies of individuals in many towns. For the most part science can tell the nature and number of the elements that form a complex chemical molecule and the exact proportions in which they combine; but it will plainly be a long, long time before it is able to define exactly the constituent factors of a social organisation, and to set forth their relations to one another in the product.

Meanwhile it is obvious enough how in the social state the egoistic passions of men—their antagonistic rivalries, jealousies, emulations, ambitions, avarices, and the like, being constrained and utilised in spite of themselves to serve the common good—are really the conditions of social progress: how, for example, avarice operates usefully to incite commercial zeal and activity, self-interest to establish rights of property, ambition to stir men to political and other public work, envy to spur them to make themselves equal to the object of envy, vanity to inspire them so to please as to gain the approbation of their fellows; so that in the result, as Vico remarked, ‘vices capable of destroying the human race produce public happiness.’ It is not that private vices become public virtues, as Mandeville ingeniously maintained, but it is that the neutralisations, fusions and other complicated reactions of these personal forces, when brought together in the social crucible, are constrained to issue in results contributive to the welfare of the whole.

To seek private good in the fullest gratification of his passions the individual must recognise social interde-

pendences and adapt his conduct to the conditions in which he is a social element. Self-love is not despicable, but laudable, since duties to self, if self-perfecting—as true duties to self are—must needs be duties to others. Just as he may gratify a particular passion that is strong in him to the injury of himself as a whole, in defiance of what a large and true self-love would prescribe, so as a social element he may gratify his egoistic impulses in an extreme way and to the hurt of society as a whole. But just as he cannot get the fullest gratification, counting duration as well as intensity, out of a particular passion except by subordinating it to the larger welfare of the whole, losing in the end if he over-indulges it; so he cannot get the fullest and best gratification of all his egoistic impulses in a complex society, except through a restraining respect to the interests of society as a whole; he gains not, but loses, in the end, if he gives way to inconsiderate excess. As member of a social body he cannot live except by living in it, by it and for it, any more than an organ of his own body can live separate from the whole. Indeed, it is an incontrovertible truth that if a man were deliberately to set himself by careful calculation to obtain the greatest happiness possible for himself in this world—which he could do only by getting the utmost gratification, not of a particular appetite or passion, but of every passion, appetite, sentiment or emotion which he was capable of being affected by—the experiment would infallibly force him to a vital realisation of the truth that he and others in the social body are truly members of one body, in which no one can suffer or rejoice apart, and, as such, fellow-workers to an end which, though not pre-conceived by them, actually controls and directs their energies. He would feel vitally the *solidarity* of mankind, and perceive that in it he lives and has his being; by it, witting or unwitting, is governed; and from it derives obligations of duty. For it is not merely that his passions work in spite of him to a higher and wider end than he foresees, but, independently of reflection, he is himself insensibly permeated and inspired with the social spirit in which he is born and lives; the consequence of which is that his own nature

undergoes a gradual social transformation with the advance of social development, and so the desire of what seems to him good becomes little by little less self-regarding and has more and more regard to the good of the community. As a socially constituted being, he does social acts naturally and, so to speak, instinctively, without considering exactly whether they will bring him pleasure or pain; he feels his own weal in the common weal, and it is his pleasure to exercise the function of which he is capable; in fact it may come to be his egoistic impulse to act altruistically, his selfish impulse to act unselfishly. How vain and empty then the vague discussions concerning the hedonistic or altruistic *primum mobile* of individual conduct!

It is very evident that the different appetites, passions, and affections of individuals in social combination tend really to promote both public and private good, though some of them have more immediate respect to private, others of them to public good. The sexual passion is as strong an instance as can be adduced of a purely egoistic passion, for its impulse is blind self-gratification—in its most brutal aspects, a veritable rape of pleasure; but when we reflect on its wide-reaching results in the foundation of the family, which is the constituent element of society, we perceive how vast a social signification it has. It is not by eradication but by wise direction of egoistic passions, not by annihilation but by utilisation of them, that progress in social culture takes place; and one can only wonder at the absurdly unpractical way in which theologians have decried against them, contemning and condemning them, as though it were a good man's first duty to root them clean out of his nature, and as though it were their earnest aim to have a chastity of impotence, a morality of emasculation.

What wonder that Christian morality has failed, and must fail, to govern the practical conduct of life in the struggle for existence, and that the individual perforce accommodates his morality to his life, instead of adjusting his life strictly to his morality! Could there be a more unhappy spectacle than that of the poor wretch who should take its moral maxims in literal earnest and make them the strict rules of

his life? The plain effects of them are to make beggars and impostors by profusion of charity; to invite affronts by easy forgiveness of injuries; to render it the interest of no one either to befriend or to forbear injuring another, because of its rigid inculcation of the same loving attitude towards friend and enemy; to put the innocence of the dove at the mercy of the guile of the serpent; to make the good man the easy prey of the scoundrel; to suffer crime to go unpunished because it must always be that there is no one who has the sinless right to punish; to cultivate sorrow and self-abasement as the creed of life; to take no thought for tomorrow, because the lilies of the field toil not; in fine, to do all those things that would render a State impossible. An eminent Catholic writer has surmised that men would have falsified geometry as they have corrupted Christianity, had it been their interest to do so; but the truth is that the corrupted Christianity is an example of the survival of the fittest, a proof of the necessity of the corruption; and that Christianity could not have survived at all had it not been corrupted into practicality. The grand and lofty ideal which it presents goes far to leave human nature out of the reckoning; and therefore human nature, when it ought to reduce it to practice, goes far to leave it out of the reckoning. And as in time past, so in time to come; for it is not likely that men will ever be brought to a sheep-like uniformity of character, when they shall be gentle, peaceable, free from disturbing desires of progress, having all, wanting nothing, happy in a placid immobility of being. Such an extinction of originality in what would be evolutionary closure will always be prevented by the feverish activity of the unquenchable passions of human nature, for it is by them that nature pursues its aim, in spite of man's ideal desire of peace, concord, ease; they are the ministers of its work, and through them he is made to fulfil its purpose. All the horrible and heartrending things that have ever been in the world—wars, slaughters, tyrannies, tortures; frauds, guile, intrigues and lies; lusts, rapes, revelries, debaucheries, thefts, murders and other crimes;—all the offsprings, great and small, open or secret, immediate or remote, of human

passions have been strictly necessary events in the becoming of what is—not to be deplored as accidents, but viewed in tranquil spirit as fulfilments, of progress—and will continue to be necessary events thereof, so long as the order of progress continues to be human. Not, perhaps, always in the gross and violent manifestations of the past: wars, for example, may cease in their crude military forms of open violence, but they will still continue in subtler forms of commercial and industrial competitions; and the passions which they breed in these circumstances may perhaps be more insidious and demoralising than those of open war, which, as an incomparable school of heroism, devotion, self-sacrifice, has actually been the mightiest instrument of human progress.¹

Co-operation to a common end has been at the foundation of all society, and it is easy to perceive how it may have been a main basis of the formation of language, which is so essentially bound up with social development. For my part, I hold that the working of men together for a definite purpose has preceded their feeling together; that synergy goes before sympathy; and that the latter is developed as a consequence of the former. The order of the process in fact is—first, synergy, then sympathy, and afterwards synthesis—that is to say, in their order, action together, feeling together, and thinking together. The *consensus* of action becomes a *sense-in-common* or *social* sense, and the latter by a still higher evolution a *conscience* or *moral* sense, which is the affective outcome of *knowing* or *thinking together*, the feeling bred of a common intellectual *synthesis*. Always is it the effect of co-operative activity to engender a common feeling as the

¹ Open robbery by violence on the highway is pretty well extinct, and we pride ourselves on our progress in consequence. But was that open robbery of the person really so immoral and so widely harmful as the more subtle and far-reaching robbery of those who start fraudulent commercial companies and ruin thousands? And was the moral state of the community worse then, when the highwayman was hanged for his crime, than it is now when the successful company-monger who lives by robbery is not hanged, not even scouted as a scoundrel, but is received into society because of his riches, and becomes perhaps a member of the legislature, where it would be thought very ill manners to make the least reference to his criminal career?

expression of it; and as intellectual activity represents complex reflex processes of activity at successively higher removes, the corresponding feelings are respectively also of a higher and more refined character; whence it comes to pass that conscience or moral sense rises higher and higher, in its different degrees of refinement, by development out of social feeling. But to say so is not, as some persons hastily and indignantly imagine, to say that moral sense is no more than a primitive social sense: the parts of a flower are transformed leaves, but the flower is not a leaf, nor is it identified with a leaf by having its parts traced back to a primitive leaf. In like manner, to trace the roots of the moral sense down into social feeling, and even deeper still into the instinct of propagation, as one might do, is not an identification of two things that are different, but an exposition of a particular case of continuity of development in nature.

The recognition of an inflexible order of nature does not strip phenomena of their moral meaning, as many persons ignorantly fear; on the contrary, the growth of morality through the ages, which they are happy to believe takes place, is only possible, outside metaphysical regions, by virtue of such order. Is there any good reason why the doctrine of *evolution* and the doctrine of *epigenesis* should be opposed to one another as irreconcilable doctrines? More correctly perhaps, epigenesis is an event of evolution, and evolution impossible without epigenesis; for evolution, strictly speaking, is the unfolding of that which lies as a preformation in germ, which a new product with new properties manifestly does not, any more than the differential calculus lies in a primeval atom; while epigenesis signifies a state that is the basis of, and the causative impulse to, a new and more complex state. There is a leap; and it is not good philosophy to blindfold ourselves with a big word when taking the leap, as some evolutionists will have us do, and then to protest that we have not taken it. At the same time it is equally bad philosophy, on the other side, to ignore the continuity between the new and old, and to find a reason for the present anywhere else than in the basis and impulse of the past.

Given beings each of whom is moved individually by an instinct of self-preservation and its congenial passions, how to obtain a social and altruistic feeling? The answer is, by the same process that we see in daily operation to increase it now in an individual—namely, by the social transformation of egoistic impulses. Without carbon, hydrogen, oxygen, and nitrogen there could be no organic molecule; without the animals that preceded him on earth in the line of ascent to him man could not have been, for he, as animal, sums up in himself the characters of the different species of animals below him and might therefore be described as the collective or general animal; without the egoistic passions there could be no social sense. Perhaps it is because the moral sense has been developed out of the egoistic passions that it is capable of controlling them, for such control will be a development of energy at their expense by absorbing and transforming their energies. There is no loss of energy, no creation of energy, only a conversion thereof; what conscience gains passion loses; and how could conscience restrain or otherwise affect passion, any more than it can restrain or otherwise affect gravitation, if it had no affinity of nature with it? An organic molecule could not maintain and increase itself by taking atoms of carbon and nitrogen into its structure, were not atoms of carbon and nitrogen natural constituents of its structure. The aim of moral development is to increase the higher quality which has been obtained by the social transformation of the lower qualities; and that can be done only at the cost and by the consumption, as it were, of the lower qualities—by the social fusion of egoisms. In the strength of a man's egoistic passions lie the promise and the guarantee of the strength of his moral nature, if so be he succeeds in coercing them into entire furtherance of its best development. It is a huge absurdity then to place the egoistic and the altruistic feelings over against one another in absolute opposition and contrast, as if they were contradictory and entirely unrelated qualities, engaged in an eternal internecine conflict, and separated by the impassable barrier of a different order of existence; widely as they appear to contrast in their

functions, altruistic feeling rests at bottom on the basis of an equilibrium of the passions. It may well be that the mode of evolution of moral feeling out of social feeling, and of social feeling out of egoistic feeling, are not easily discerned in the individual, whose consolidated heritages of aptitudes and faculties prevent us from tracing things back to their beginnings and so giving a genetic exposition of them, but an examination of the development of the race will leave no doubt of it.

It is not within my purpose to meddle with the disputes concerning the nature and development of the moral sense, except so far as to point out how empty and unreal they are apt for the most part to be, owing to the common habit of abstracting it from all its contents. Instead of dilating on an inborn moral sentiment or intuition of right and wrong in the individual, would it not be wiser to observe accurately and to consider well moral instances as they are actually presented to us in nature? What moral feeling, and of what kind, is there in children, in savages, and in an animal like the dog? And would children without education and without a suitable intellectual and moral medium develop it, any more than they would develop language under similar unpropitious conditions of existence? In the nervous substrata that represent the results of ancestral action in moral relations they possess the proper instruments so to speak, which may be trained to action, but which will not act without fit training; the actual process of events being not inaptly comparable perhaps with that which takes place in the training of the eye-muscles for the exceeding fine and complex movements of educated vision. If that be so, the intuition of an abstract right and wrong before experience is as much an absurdity as the innate perception of a cathedral, or as the intuition of a complete European moral code. But immediately that the proper stimuli bring them into action there will be a certain pleasure from the moral exercise, as there is from the exercise of other functions; and that pleasure is naturally felt as moral *sentiment*.

It is not in all children that these substrata exist in equal perfection of development: a savage child could no more learn high morality in favourable circumstances than

it could learn high geometry; and amongst children of civilised persons there are great differences, some being born with manifestly better moral aptitudes than others, just as some are born with good geometrical aptitudes and others not. From the moment they are put into exercise in a civilised child they are subject to continual training, conscious or unconscious, through imitation and education; for always around it and pressing on it are those strong social forces which are connoted by such names as *sympathy*, most powerful and far-reaching in its most signal example of *love*; *imitation* which, resting on a basis of sympathy, is a function of the nervous system that we see in continual operation, conscious and unconscious; *custom*, the power of which to determine modes of thinking and feeling, as well as doing, it is impossible to exaggerate; and *opinion*, operating not only well in inspiring individuals with the desire to obtain the good opinion of those who are rightly respected and esteemed by them, but oftentimes ill in inculcating bad habits of thought and feeling, and giving an authoritative sanction to false and pernicious beliefs. These forces act so steadily and continually through generations that they might well end by making all men alike, as uniform in look and dispositions as a flock of sheep, were it not that the ever active passions of human nature—envies, emulations, ambitions, and the like—prevent such a peaceful consummation. Necessarily, however, the effects of special social media are to fashion special types of social or moral feeling, according to the particular types that prevail in them respectively; wherefore a history of morals is the story of a great many types that have been among different peoples and at different epochs, and eternal principles have not had a longer eternity than the space of an epoch or the life of a nation.

What we have to learn from these considerations is, once more, that there is no such reality as an abstract moral feeling or conscience; that conscience is not being but notion; that there are as many particular moral feelings as there are particular cases; a great variety of them, differing in quality in different persons and in different peoples according to their intellectual and social developments and to the moral

ideals which they cherish and preach. Morality therefore may contain a very weak or a very strong tincture of moral essence; and it is with the particular feeling not with the abstraction that discussion must concern itself in order to be fruitful. To this end it should not be lost sight of for a moment that morality is *practical*—its basis conformity to an end outside self, the end of the whole as distinguished from a purely personal end; and in that particular aspect what we have to investigate and consider are the special and complex functions of the adapted nervous substrata in response to the special and complex social impressions. A grand ethical principle is a blaze of light in the sky far overhead, but it does not lighten the particular path along which we have to painfully pick our way; for it is the application of the principle to the special case that is the trouble. Not to think and feel only, but to *do*, is the end of being—to act one's part in the becoming of things and to affect for good or ill the common weal by such action; were pure contemplation the business of life, were it enough to think and feel about things, the logical end of it would be a self-annihilating ecstasy.

Here, then, with the highest moral feeling, as was the case with abstract thought, we are brought to a living contact with realities; home we come in the end to the primitive basis of a concrete reflex act, if we are resolved to understand its exact meaning or contents. To dispute about pains and pleasures in the general, egoism and altruism in the abstract, as motives of action, is to begin anywhere and end anywhere, but to arrive nowhere. Pure internal feelings of pleasure and pain, of moral approbation and disapprobation, undoubtedly exist, but in the order of existence they are rooted in action and developed out of experience, and must in the last resort receive their interpretation there. In the first instance, external considerations of good or ill determine suitable and useful acts, and perhaps the very same kind of acts that the highest moral feeling would determine; at a later and higher stage of development, the feeling which has been developed out of action exists independently of the external considerations that were effective in the first instance; and then the feeling by itself, which is purely internal, deter-

mines action, its pains and pleasures therein being actually greater than those which sprang from purely intellectual considerations of self-interest. But if we would test the value of the feeling we must always look to the social quality of the action; for there is not a vice nor crime of which human nature is capable that has not received the strongest approbation of conscience in one nation or another, at one period or another of human history.

SECTION VI.

THE COERCING FORCES OF SOCIAL UNION.

To coerce the egoistic impulses into the combination or fusion necessary to produce the most primitive social feeling, it is plain that tremendous pressure from without must have been exerted upon the individual through the medium; for only by such compression of their energies could the conditions of transformation, the white heat of fusion, so to speak, be generated. We may compare the operation to that by which the formless and sooty matter of carbon has been converted into the pure and sparkling crystal of the diamond. At a very early period of his martyrdom on earth, the conflict with the powers of nature and the animals around him must have forced man into some sort of co-operation in order to survive—to conquer by obedience and to increase by conquest; and it is plain that those individuals who did unite, and more especially those who united into the more compact organisation, having therein great advantages in the struggle for existence over those who did not, would survive by natural selection.

Mark well now the tremendous agencies that were invented in the shape of supernatural powers, social rites, sacred customs, superstitious ordinances, and the like—oftentimes horribly cruel and oppressive—and used in the most unsparing way in order to enforce conformity. The heavens above and the earth beneath and the regions under the earth were

peopled with terrors of the most awful kind, with the aim and effect of compelling obedience and establishing a compulsory co-operation: such the terrible syntheses made in order to enforce synergy. We observe a similar process in operation now in the social fears and pressures brought to bear upon classes of men for the purpose of making them act together—in trade-unionism, Irish land-leagueism, and the like. Is there any tyranny anywhere equal to that which a savage ruler exercises upon his subjects, with abject submission on their part, in enforcing the sacred 'customs' of the tribe? What would be the fate in Dahomey now, or in any similar barbarous country, of a reformer who should venture to call in question the bloody and barbarous 'customs' of the nation? But indeed it is almost as hard to conceive the occurrence of that sceptical disposition of mind in such a social medium, as it is to conceive the occurrence of an ant or other insect that should suddenly go outside its instincts and adopt a useful modification of conduct which, though it misses it, seems so close at hand and palpably evident to our higher contemplative intelligence; or to suppose a complex reflex act that subserves a particular function to modify its character suddenly in order to supersede its old by a new and better suited function; or to imagine a narrow, intense, evangelical mind that had never by any chance gone outside the shibboleth of the particular creed and phraseology in which it was born and bred, to develop suddenly extreme cosmopolitan notions of human salvation and damnation; or to conceive ninety-nine persons out of a hundred getting out of their habitual routine of thought, feeling, and conduct into a new path of higher thought which runs close at hand.

See how well the automatic and necessary nature of habitual lines of thought and reasoning is shown by the fact that calculation and reasoning can be done by machinery, and that calculating and logical machines actually approach nearer in function to human thought than any animal can, superior as the animal is in the possession of feeling and will. The custom of the tribe is a sufficient explanation to the savage of any ceremonial or observance, however oppressive, and he cannot conceive that any other reason for it should be necessary; it is that which

always has been, and he cannot conceive it as not being. In like manner, the automatism of a particular mental function which he calls a belief is the sufficient justification of it, its sure guarantee, to the person who has never brought his mind into other relations of experience: he will undergo martyrdom for conscience's sake rather than suffer himself to be made conscious of possible error. To have another belief not consistent with it presented to him, though it be one for which another person would undergo martyrdom for his conscience's sake, occasions him much the same shock of horror and dismay as would the appearance for the first time in a tribe of savages of a stranger who did not conform to their customs; or as would the intrusion into a nest of ants of a strange ant which exhibited other instincts than theirs. In both cases we may be pretty sure that the offended community, so soon as they rallied from the shock of surprise, would make short work of the intruder and his novelties.

For an individual to be cast out of his special society, to be excommunicated from his community, has always been regarded as a terrible punishment by those who inflicted it, and an awful fate by him whom it befell; for a long time, indeed, it was equivalent to putting him out of all human society, and to the condemnation of him to a lingering death. So great, too, was the imaginative horror of it, apart from the physical sufferings which it entailed, that he might well have thought it a less terrible thing to be put to death by his tribe than to be put out of it. One sees in the histories of savages how any marked deviation from bodily uniformity—a deformity or other infirmity—which, rendering the individual much different from others, put him out of social uniformity, was a sufficient reason for abandoning or destroying him; and one sees the persistence, until quite lately, of a similar feeling with regard to lunatics in civilised countries, whose treatment in consequence was extremely barbarous and cruel; for it was long after infirmities of body had ceased to excite aught but compassion that infirmities of mind continued to excite derision. Indeed, they do so still in some measure; for the term lunatic provokes laughter

whenever it is uttered in the senate or on the stage, and the malady is commonly concealed as a shame by the family in which it occurs. Note again in this connection the tendency which savages and children show to laugh and jeer at bodily deformities, at the infliction of sufferings, and the like. Laughter, if we consider the meaning of it, is essentially a social feature, and no one likes to be put out of society, as it were, by being laughed at, even though he may have small respect for those who laugh at him. It is the instinctive fear of social extinction that constitutes half the agony of dying: the one anxiety that a dying person shows, when he shows any, is to be not left alone, but to have friendly faces around him; for he feels vaguely that he is slipping away from his social surroundings and his hold on being, vanishing into the void and unknown, and he desires the reassurance and stay of the familiar presence of friend or relative to cling to, as the supports of life sink under him. Hence also it is that he commonly finds huge comfort in the attendance and services of those who are brought about him to administer spiritual consolations and to perform the last offices of religion; they are the means of making for him a special and fitting social support, and of so helping him in the passage from the social environment that is slipping from his failing grasp, to another environment dimly anticipated but looming mysterious and undefined; and he leans with eagerness on the support at that juncture when life has so far waned in him as to occasion a tremulous forefeeling of its early extinction, but not yet so far as to blunt his apprehensions or to render him indifferent or unconscious.

The creeds, superstitions, customs, ceremonials, laws, deities, demons, and the like, by which the social compression and transformation of egoism have been effected, were not of course invented by the individual; but certainly humanity invented them. Out of itself has it developed them, under the pressure of its environment, as the fitting agencies to determine its progress in the direction which that progress has taken. They were rude syntheses framed to give it some unity of action in its unequal conflict with

the vast and unknown powers of nature which it found itself face to face with. Rude as they were, they have done their work in the guidance of conduct, and, having done it, they have faded away in the light of the progress which they have helped to make; until now, when the knowledge of nature by civilised peoples has become so wide and searching as to leave them no nook to lurk in, we are left with the categorical imperative of the moral law as sole and supreme sanction. The progress has been from the graven image to what we may call the graven-image-idea of a personal God made after the fashion of man and issuing his code of commandments to him, and from that again to the abstract conception of a moral imperative. In its imperative rule which, whether innate in the individual or not, humanity has created, we see man once more make for himself the necessity which it is his freedom to obey.

In noting the successive steps of a process of evolution in nature that does not stop short at man, but continues onwards through his thinkings and doings, our proper office is to observe the successive facts and to trace the order of the becoming; we cannot in the least explain *why* the becoming should be as it is. How indeed is it conceivable that we, parts of the process, beings of an hour, atomic units of an incomprehensible whole, could ever explain that which reaches from an infinite past and presses forward to an infinite future, and of the pulse of which any attempted explanation is but a moment? We are not bound, however, by this admission to conclude, as some do, that no step of the process could have been better than it was; that all organs and organisms are most perfect in their kind, and could not in any respect have conceivably been more fit for their purposes than they are; and that all the horrors, crimes, outrages, sins, and sufferings of human doings from the beginning, being necessary steps, were the best possible events of a best possible process of human evolution. It were as legitimate to admit that every tree of a kind is perfect, which it manifestly is not, though as good as it could be in the chances and circumstances of its position; or that the twisted horn of a ram which sometimes grows

steadily through its eye into its brain, blinding it first and in the end killing it, unless the shepherd come to the rescue, is a very perfect thing of its kind. There are few creatures in which it would not be easy for a competent anatomist to suggest some improvements of construction to enable them to fulfil better the purposes they do fulfil; and certainly it is not impossible to conceive that the human kind might have reached its present plane of development, without some of the waste of life and agony that has been so marked a feature of the blood-stained course.¹ Considering the manifold gradations and modifications and degenerations of organic development, and the tedious transformations through which in the successions of the ages each organ and organism has reached its present form, it would appear that nature itself was profoundly dissatisfied with its work before it was able, by attaining to consciousness in its stage of human evolution, to know that it was so; for instead of pronouncing a thing good of its kind after having produced it, its habit has been to set to work immediately to modify it into another kind, and not always for the better. The intermediate gradations which geological researches make known between the various groups of organic beings that now stand apart, what were they but so many transitional steps in construction abandoned soon after they were made, as if they had been proofs or essays? And the same may be said of the successive races of men that, like leaves on trees, have come and gone through the measureless past.

The facts of organic and human nature, when observed frankly and judged without bias, do not warrant the argument of a supreme and beneficent artificer working after methods of human intelligence, but perfect in all his works; rather would they warrant, if viewed from the human standpoint, the conception of an almighty malignant power that was working out some far off end of its own, with the serenest

¹ To speak of a course as blood-stained seems from the human standpoint to convey something of a reproach. But from the standpoint of the whole the flow of blood may be as natural, as little repulsive, as the flow of water. Blood is instinctively revolting to man, because it is associated with the destruction of individuality, on which he naturally sets mighty store.

disregard of the suffering, expenditure, and waste which were entailed in the process. Is it impious and unlawful for the feeble and imperfect understanding of a finite creature to presume to measure the perfection of the works of an incomprehensible and infinite Being, whose ways are past finding out, and in whose sight the highest human wisdom is foolishness? Be it so; but let it not then be overlooked that the argument for the existence of such a supreme artificer, drawn from a contemplation of his wonderful works or from any other revelation of him in human consciousness, is itself essentially and entirely anthropomorphic; that is to say, it is the transplantation into external nature of human notions of working to an end on certain lines which man, from his finite basis, agrees to think intelligent, but which may after all be very stupid. If we cannot from the basis of our own capacities justly make the smaller inference of imperfect workmanship, what right have we from the same defective basis to make the larger inference of a conscious personal worker conceived in the image of ourselves and acting, like us, to accomplish ends which he, all-perfect Being, desires? For what does the theory postulate? The Omnipotent and All-perfect in a state of desire and of accomplishment!

Speculations of this sort, however, are really void of any meaning. Ideas derived from conditional existence cannot apply to that which by the very nature of the case transcends the conditions of origin of the ideas. No human thought can extend itself beyond the relative; *necessary* truths are truths that are necessary within human experience; *absolute* truths are truths that are absolutely true within the limits of human relations; the *categorical imperative* is the imperative which rules within the category of human being; they are all modes of finite thought and feeling, and no less relative than are sounds or smells. No straining of metaphysical speculation will ever get us beyond ourselves—ever make the contents more than the continent, the grasp bigger than the hand. Infinite is a merely negative word, it is the negation of bounds, *not-finite*; and it is really to dupe ourselves with a vain imagination to make it something positive

by naming it *the* infinite, and to use it thereafter as though it were *the* something. To us, measuring things by human intelligence, the seemingly prodigal waste of material, the multitudes of germs and seeds that perish timelessly, the numberless abortive failures of function and development, the slow and bungling methods of work; a whole creation groaning and travailing through countless ages of pain and death in order at the end to issue in such a being as primeval man; then, after his coming, countless ages more of human savagery and infinite waste of life, marked by sufferings so great that it might fairly be questioned whether all those that had gone before would fill up their measure; until at length the time was come—not yet two thousand years ago—for the appearance of the Saviour who was to make atonement for the sin of which these were the consequences, and to proclaim for the first time the right law of life;—all this must needs appear wasteful and bad workmanship. Have all these things been exactly necessary to produce a being who, for the first time, could suffer the pain of knowing and feeling them, and who then might make the self-crucifixion of the divine element in him the initiation of a higher progress? Given infinite power, however, and infinite time, and infinite material, what right have we to speak of the transcendent business in terms of our notions? Quickened perception so that a thousand years is as the twinkling of an eye to it, and what becomes of the waste and bungling; retard it so that a moment is as a thousand years, and what waste and bungling might we not think to find in the now imperceptibly rapid stroke of a gnat's wing? View from a proper distance a cataract of water tumbling headlong from a mountain height, it appears a solid and motionless mass, 'frozen by distance:' imagine oneself inside a molecule of seemingly inert matter, with senses fine and acute enough to perceive what goes on there, the complicated motions and harmonies of the solar system might seem simple by comparison with its intestine motions. Under different conditions of perception the most nice, quick and exact adaptation of means to end which we know in nature might appear to be the very play of chance, and the success of it a mere accident.

While perceiving a process of organic evolution going steadily on, howbeit in what appears to us a very wasteful fashion, we ought not to overlook the fact that side by side with it everywhere there is, as Lamarck did not fail to point out, a process of degeneracy. All the changes that take place are not ascending steps of evolution, some of them are descending steps of degeneration; not all of them events of a becoming, many of them events of an unbecoming; not all of them the products of doing, many of them the products of an undoing; organisms undergoing degenerative modifications that render them less fit for their purposes, and retrograde organic products being formed that act to produce dissolution. There is, so to speak, a broad and easy way leading to degeneration, decay and death, which is the opposite of the steep and narrow path that leads to evolution and fuller life. The principle of good and the principle of evil in the world, which have been recognised by all peoples in all ages under one form or another by way of explanations of positive facts of observation, may be taken to be primitive intuitions of these opposite laws of evolution and degeneracy. Nay, one may perhaps venture to go further and say that the theory of a fall from a state of perfection and happiness, whereby sin and suffering gained entrance into the world, was a one-sided generalisation from facts, made instinctively to account for phenomena which are the outcome of the law of degeneracy in nature. Having made this generalisation, it became necessary, first, to account for such a downward tendency, and afterwards to reconcile with it the evidence of an opposite progressive tendency, which also could not escape observation: hence two theories—the theory of an expulsion from bliss in consequence of disobedience inspired by the evil principle, whereby things went wrong; and the complementary theory of an atonement for the sin by the good principle, whereby things became capable of amendment and mended. At present we fix attention too much perhaps on the process of evolution, to the overlooking of the correlative process of degeneration that is going on, not only in low but in high organisms; not only in the low but in the high functions of the higher organisms; not only in body

but in mind; not only in characters but in beliefs; not only in individuals but in societies; not only in societies but in nations.

That the supreme artificer produces these degenerations and all the sufferings, sharp and lingering, which the working out of them in so wide and various domains of nature means, or permits them for his own wise and inscrutable purposes—a wisdom safely predicated that in the same breath is declared to be inscrutable—is a satisfactory theory to the theologian, who acknowledges that there cannot be ‘evil in the city and the Lord hath not done it,’ and a theory which has been the most powerful of all agencies in promoting the social evolution of mankind; but it will not equally satisfy always those who fail to see sufficient reason why man should put a magnified personality of his own fashion and fashioning into and over nature, making it co-extensive with infinity of time and space: a being of anthropomorphic construction who from a human basis is yet built up of the negations of all positive human conceptions, being *infinite*, *incomprehensible*, *ineffable*, *invisible*, *inscrutable*, *inconceivable*, *incorporeal*, *immortal*. The sum of a multitude of negations making one, and that THE ONE!

SECTION VII.

CERTAIN MENTAL PRODUCTS OF EVOLUTION.

I PROCEED now to examine the *nisus* of evolution in its highest expressions in the great organism of humanity, purposing to find in it the foundation and inspiration of certain feelings, aspirations, and beliefs which, being widely spread amongst mankind and not easy to account for, have been thought to be intuitions of supernatural origin. The fact is notable that men have often believed that they possessed another and higher source of knowledge than the senses, whether called supernatural inspiration, mystical intuition, divine reminiscence, or by whatever other name; even so

decided an advocate of the transformation of sensation into knowledge as Condillac allowed that they did possess supra-sensual intuition when they were in the garden of Eden, maintaining only that they lost it on the occasion of their expulsion therefrom. Now whence have sprung the notions of a past golden age when all was peace and happiness, and of a life to come after death when sorrow and death shall be no more? Whence that fair fable of the morning and that fond vision of the evening? Was it perhaps that the pageant of radiant glory in the heavens which oftentimes heralds the rising, and follows in the train of the setting sun, was applied by a natural transference to the rising and setting of human life? If the different refractions of the vibrations of light by intervening vapours were the true cause of the glorious myth, as of the glorious spectacle, well may Kant be said to have drunk confusion to Newton who, by the discovery of the spectrum, had destroyed the poetry of the rainbow. However that be, the belief of a future state of immortality is so widespread and firmly fixed, so instinctively urgent apparently, that the existence of it is often aduced as an irrefutable argument of its truth. Is it then actually a prophetic forefeeling which mankind has had more or less dimly from the beginning and will have more and more clearly to the end; or is it the survival of an ancient superstition that is gradually undergoing extinction, with no higher authority for its alleged universality than its natural prevalence as a belief proper to a certain immature stage of the development of human thought? For it is certainly true of beliefs, as of organisms, that they survive in the world in retrograde or degenerate states for a long time after changes in the medium have rendered their former functions obsolete and them unfit to perform them.

Whence again do men obtain their eager aspirations after a higher ideal of understanding, feeling, and conduct than earth has ever known? Here is a human ideal, an ideal made by nature through man, which, however, nature has never realised, and is always as far as ever from realising, because as practice improves the ideal rises in propor-

tion. Moreover, the ideal, in order to be realised, must have its ideal social conditions, which it is impossible it should ever have; for it is the initial variation of a higher development, which has to adapt itself in the best way it can, that is, with the least prejudice to its own higher nature, to existing social conditions, and in so doing to improve them. No little ridicule has at different times been thrown on Lamarek's notion that it is the *want* or *need* which creates the organ by minute increments of growth, and it is a notion which easily lends itself to ridicule; but what have we in the ideal but a sense of want in the highest mental organisation, a yearning or striving to satisfy itself and an impulse to development in consequence? Why may not the impulse that manifests itself in consciousness as a *want* be displayed essentially by developing organic matter, albeit without consciousness? What Lamarek may be said to have done was to describe the *nisus* in terms of consciousness instead of discovering the organic *nisus* beneath the conscious want. Be that as it may, however, it is plainly necessary for mankind to have its ideal, if it is to make progress; when it has lost the imagination of a state of perfection which never is but always is to be, it will have lost the impulse of evolution and have entered on the path of its decline. Does not instinct, if we consider it well, signify a desire or want of something which is not actually apprehended, a dumb craving for the unknown? The analysis of will, when we make it, brings us to desire enlightened and guided by reason, that is, to the want of a known and approved object; but if we carry the analysis deeper down from complex desire to the most simple desire and thence to appetite, we come at last to the question—Why a desire or appetite for something before that which is desired is known? Consciousness does not make the desire; it is that which lies beneath consciousness in the desire that stirs the consciousness, the unconscious appetite that makes the conscious desire. We must plant ourselves at the last on the fundamental property of life to maintain and increase itself, and we then find ourselves resting on the eternal *nisus* of evolution. So that by this way of proceeding we perceive again

that our highest mental aspirations to the ideal are truly the highest evolutionary manifestations as they take place in human consciousness. It is curious to note by the way here how man's two fundamental instincts, the self-conservative and the propagative, may be discovered at the foundations respectively of the two great doctrines of materialism and idealism; the former, coarse and common, so to speak, having immediate respect to the present, and the latter, more refined and glowing with the glamour of love, having a large respect to the future.

Whence the categorical imperative of the moral sense? Whence the instinctive feeling of a self-determining will, in defiance of all arguments demonstrating its inclusion within the law of conservation of energy—a feeling that inspires the conviction of something different from any other sort of determination within human experience and substantially warrants the persistence of the disputes concerning freedom? We are to inquire now whether the answers to these questions, so far as they can be answered, are not to be sought in the fathomable operations of the unfathomable impulse of evolution; of which it may truly be said that it cometh from afar, was before man was, works in his progress, prophesies in his instincts and aspirations, inspires his faiths, is interpreted lamely in his creeds, and its end is not yet.

The doctrine of evolution substitutes a continuous creation for a creation by separate shocks, and thereby nowise lessens the mystery of the universe. To say that nature produces an organ or a species, or that it is produced by evolution, or that it comes by a process of becoming, is to say exactly the same thing in different words; there is not a jot more light in one statement, as a general statement, than in another. Certainly there is not creation in the sense of the making of something out of nothing; no addition takes place to the whole sum of matter and energy in the universe; the new thing which is the product of the old, but not the old, having its own properties or functions, is obtained by the transformation of lower kinds of force and matter, and is capable of equivalent resolution into them

again.¹ A new organism is the product of precedent organisms and of the external conditions of the medium, but it is neither the precedent organism nor the external conditions; nor is it merely the arithmetical sum or mechanical compound of them; it is a new product with properties of its own, distinctly autonomous. But to endow it with *autonomy* of function is not to ascribe to it *spontaneity* either of being or function; it has not been built up out of the void, nor does it live but in relation to a medium; and always an external stimulus, direct or indirect, is required to act upon the stored energies of its structures, and so to liberate what seem at first sight remote and disproportionate effects.

Let this conception be applied to the highest functions of the most complex nervous organisation as they are manifest in the operations of mind; and in particular to that purposive determination of energy that follows deliberation—namely, to will. Motives are necessary antecedents of will, but assuredly will is not motive, nor is it simply the sum of the foregoing motives; it is a new product, the outcome of antecedents certainly, but autonomous. Here then may be the ground of a sort of reconciliation between those who advocate freewill and those who advocate determinism. On the one hand is the absolute certitude that will is not the mechanical consequence nor the arithmetical sum of the antecedent motives, that it possesses and exhibits more than can be discerned in them; on the other hand is the equal certitude that motives, secret and open, near and remote, explicit in consciousness and incorporate in faculty, always do go before an act of will and are pre-essential to it. On either side there is a grasp of that part of the truth which is overlooked by the other

¹ Is the intellect of a Shakspeare or a Newton capable then of being accounted for by any transformation of natural forces, or of being resolved into any imaginable equivalence of forces? Those who put such a question with scorn as one that is utterly ridiculous, should first inquire and explain why a Shakspeare or Newton could not possibly appear among a tribe of savages, and why, if the impossible events did take place, the productions of their mighty intellects would be *nil*. After that exposition the discussion might begin.

side: may not the two sides then unite in the conclusion that precedent motives are necessary constituents of will, but that the qualities of the product are special, its functions autonomous? It needs no disquisition to make it probable, after what has gone before, that this autonomy of will, which we recognise as a scientific conclusion, according to the apprehension of sense and in conformity with our experience of other natural phenomena, will declare itself to the internal apprehension of consciousness as a strong sentiment of freewill: that which is autonomy objectively will be self-determination subjectively. There is not an independence of every influence, but a more or less exclusive dependence on internal influences.

When we perceive in a department of natural laws the appearance of a phenomenon that is not governed by those laws, but witnesses to the intervention of laws from another and higher domain of nature, it is not sound philosophy to seek for the source of these in spiritual abstractions or in supernatural inspirations; our duty is to ascend into the higher and unknown domain, and to study its natural laws by the same methods which we have used successfully in the lower domains where we have made ourselves at home. The intrusions from on high should not be wondered at as supernatural, but studied as the events of a higher natural domain. On the other hand, it is not sound science to apply the known laws of the phenomena of the lower domain to an entire explanation of the phenomena of the higher domain; still less to beguile oneself into the belief of an explanation by the vague misapplication of the special terms of the former, which have definite meanings in their proper use and place, to the more complex phenomena of the latter, where they not only do not cover and fit the facts, but have their own exact significations blurred and defaced by the misuse. In the knowledge of organic functions, how full soever it may be, we shall not find the adequate explanation of social phenomena. Physiology analyses and decomposes and recomposes man as an organic being into a variety of structures and a multitude of reactions, and displays their relations in the organic whole; but it is sociology

which must then take up the tale and investigate his functions as a man amongst men united in a society, discerning and displaying his nature and functions as a social and moral being. The social organism is not a mere physiological organism ; it is that and a great deal more, being essentially of historical significance, and requiring, in order to be understood, the study of antecedent social states ; and it will demand in the end a new and more complex conception of organism than anything that physiology alone can furnish. In its domain we get beyond physical, chemical and physiological laws, as we know those laws, just as in the domain of physiology we get beyond physical and chemical laws, as we know physical and chemical laws ; we meet with higher autonomies, but in no case, not even in the highest, is it an inspiration from heaven which giveth the autonomy ; it is always the inspiration that is on earth and is manifested in every pulse of evolution.

The will of man being the outcome of supreme reason is the highest and latest evolved energy in nature ; it is in fact the power by which nature developing through man accomplishes the progressing path of its destiny, the nature-made mean by which nature is made better. Acted upon continually by his environment, physical and social, and reacting upon it, man incorporates by involution in the structure and constitution of his nervous system the essential abstractions of these adaptive interactions, co-ordinates in complex reasoning their manifold relations, and exhibits the outcome of energy in a well-informed will ; and it, in its highest expression, is the initiation of a new step in evolution. Past and present experiences are its constituent factors, but it is itself more than experience, for it is productive, creative, thus pushing forth prophetically into the unknown. Like instinct, in the realisation of its energy it seeks for what it has not and knows not ; indeed, in its true creative, which is its least conscious, expression we might describe it as the highest instinct of development. In that supreme function it is not attended with any consciousness of freedom, because man is then one with nature, his relations with it not broken into conscious incompletenesses, but consciousness absorbed

and extinguished in their full harmony. It may be the sentiment of freedom that he has is not really the sentiment of his own freedom, as he supposes, but the sentiment of the freedom of nature working in him, he being a poor channel of it; for as he by his nature as individual is part only of a whole, he cannot in that relation be free. But the whole which, encompassing him, yet works in him, may seem to his self-consciousness free, and so produce the illusion of his freedom; its part in him having a dimly conscious intimation of its share in the being and freedom of that which transcends him. In any case, however, it is not so much a definite consciousness as an indefinite thrill of sentiment, which we translate into a too definite consciousness. Now the right aim of will must plainly be to escape from the limitation of self and to gain the full freedom of nature by becoming one with it—to surmount self by losing the consciousness of self. Freewill then is not the relic of a higher faculty which man once had in the past, it is rather an aim or ideal of the future; a creation of the imagination which inflames the notion of duty and fortifies the *ought* through the desire that it inspires to realise the ideal.

The path of moral law in social evolution is without doubt the present aim of the highest will; and it is in the inspiration of this aim, and in the autonomy of the function, that we discover the origin and the authority of the categorical moral imperative. Thou shalt go the right way of development, thou shalt not go the wrong way of degeneration: such the explicit declaration of its instinctive beat in the heart, such the reason of the understanding confirming the deeper reason of the heart. Believing ourselves the best in nature we are bound to believe the moral aspirations of the best specimens of us to represent the highest point of the evolution of will, and to mark the direction of its future development. The basis and sanction of morality, whatever its subjective value, has its clear objective value and warrant in the welfare and progress of the social organism which it promotes. Were the internal sanction abolished the external authority would still be imperative.¹ That is a consideration

¹ Should it turn out in the end that morality has this inner authority in

which may embolden us to dispense with the multitudinous theoretical discussions concerning the supernatural source and authority of the internal sanction ; and the more easily so since such disquisitions for the most part are rewavings of the same quantity of old substance into more or less new patterns according to the predilections of the performers, laborious attempts to get explicit in the inference more than is implicit in the premiss. Now a real addition to knowledge can take place only by a positive addition to the substance ; and that must come not from subjective exploration but from objective observation. The rule of morality is implicit in practice before it is explicit in thought—must be acquired by involution before it can be unfolded in evolution ; and the basis of it must be sought where the substance of all thought has to be sought—in conduct. It is not from consciousness but from life that the obligation comes primarily. A logical machine might conceivably draw the inference which is implicit in the premiss ; the acutest understanding will not elicit and unfold the theory that is not latent in the practice. Notwithstanding the many differences in the qualities and quantity of the moral contents among different nations and in different ages, there is everywhere discoverable this common positive basis—namely, the obligation to follow a line of conduct sanctioned as good, and to avoid a line of conduct prohibited as bad, by the social body ; the bad actions being such as were believed to be hurtful, and the good actions such as were believed to be useful to it. By no means was it thereby hindered from happening, as it did indeed happen, that the prohibitions and sanctions esteemed moral in a rude society were such as would be deemed actually immoral in a higher society. The whole business is relative : the individual member of a community must have a regard beyond self in the larger regard which he owes to the welfare of the whole ; the particular community again must have regard to a larger whole than itself, and that whole, even if national, to the larger whole of humanity ; so that it may

intuition, this practical imperative of pure consciousness, then it will have the good fortune to enjoy a double certitude, because of the agreement in it of the two independent methods by which it is established.

well happen that an act that is moral in its immediate relations is immoral in its relations to the larger whole—for example, self-sacrificing devotion to an individual a sin against society, a patriotic sacrifice of self to the nation a crime against humanity. The inspiration of the larger whole imparts the ideal to which the aspiration is. See what happens now when a person of lofty virtue does not get the approbation which he feels that his conduct deserves, but instead thereof is misunderstood and misinterpreted. He appeals in his heart to an ideal moral sentiment—to one, as it were, within him with whom he is in intuitive moral communion, and reconciles himself to suffer wrong patiently in the sure conviction that his conscience is the approving voice of that power within him: in other words, he appeals to the ideal moral feeling of humanity immanent in him, the ideal, that is, which humanity pursues, enjoining it in his conscience, and which he, personifying it in his own image, as his habit is, interprets as ‘God spake these words and said.’ And here one cannot help being somewhat disturbed by the question—To what larger whole than itself shall humanity have regard? Will it discover for itself a saving ideal in aspirations to do the service of a cosmical whole? Or will it be left finally without an ideal? When it comes to pass that humanity, fully constituted, is sensible of no vital relation to anything higher and larger than itself, and longs for no fuller life in the aim to attain a higher life outside itself, it will then have reached the term of its development and the beginning of the end. The impulse of evolution will have been exhausted in it.

We think habitually of will as individual and conscious activity, a witting energy, the conscious outcome of careful deliberation looking before and after; but when we think of its operation in the evolution of mankind, it is necessary to think of it rather as unconscious, blind, instinctive, pregnant with a future which, hidden in its aspirations, it brings to pass: it is a mighty tide of becoming that is broken into so many ripples of individual and conscious energies, a deep tranquil stream which, flowing beneath the tumultuous waves and angry surges of the surface, makes aspirations

prophecies, and man in his progress ever wiser than his creeds. One might compare it in this respect to the instinct of the insect which, having never seen its parents, lays up a store of food for a progeny that it will never see; or might perhaps describe it in St. Paul's words as the earnest expectation of creation that waiteth for a fulfilment, which, however, when it has come, becomes the immediate basis of a new expectation. Each mortal, eager in busy energy, does his little piece of work in his particular sphere, consciously or unconsciously aiding or hindering the development of the social organism of which he is a part; but it is not any part but the whole, not a unit but the organism in its integral form, which gives the destined direction to the sum of the functions of its many and various units—that is to say, which creates the ideal to which the individual aspires. The sum of the multitudinous units of consciousness is a moving whole which, though vaguely consensible perhaps, is not conscious. For the great organism of humanity does not foresee where it is going as it progresses, nor deliberately foreordain its path of evolution; it has no common *sensorium*, so to speak—as it may one day have, should the vaguely consensible become the definitely conscious—whereby to attain unity of feeling and to direct consciously its course; it moves forward in development slowly, irregularly, intermittently or remittently, blindly, answering in its movement no doubt to the sum of the energies of its constituents in relation to its environment, but at the same time informing and determining the units of the future by imparting to them their idealism. Mighty busy beings for a little while are the units, but infinitesimally minute aids or hindrances to the great movement of evolution whose end they know not.

To speak of the will of man as a mode of a universal will in nature, tempting though it be, ought not to be allowed to pass as if it were not a piece of pure anthropomorphism. We have no actual right to conclude from the character of the conditioned conscious energy in us as to the character of the unconditioned energy outside us; for it is the mark of our limitation, not the warrant of objective truth, that we

cannot do otherwise than represent the power outside ourselves in terms of ourselves. We please ourselves to interpret it in the language of experience, but it is actually uninterpretable in that language. A chemical molecule, were it capable of it, might just as well conclude that the one prevailing energy of which its particular energy was a mode was chemical energy. Himself a moment between those impotences of thought which he calls infinities, man's will is necessarily the poor reflex of his limitations; what is true of it cannot possibly be true of that which has not his nor any limitations; and to describe it at all in words which, being human, are meaningless in such application—even so much as to name it—is only a little less anthropomorphic than to speak of it as the Will of a Personal God made in the image of man. For assuredly, when we think well of it, it was not God who made man in his image, it is man who has always made God in his image; in the image of man has he made Him.

How far has Kant really advanced matters by his great doctrine of practical reason? In proclaiming the freedom of will and the moral imperative to be not, like the knowledge acquired by the understanding, relative and phenomenal, but the *thing-in-itself*, absolute, incomprehensible—feelable in some strange fashion, though not knowable, by a self—he has done little more than translate into his philosophical language, and into language which, being relative, will not anyhow carry the absolute thing-in-itself, the common opinion of a Divine inspiration; for what he has done is to ascribe to incomprehensible freewill the place of that incomprehensible which men call God, and to put the categorical moral imperative in the stead of 'God spake these words and said.' With this disadvantage too: that whereas what God spake and said was clear, certain, precise, and absolutely authoritative, we are left by Kant without any certain criterion of what the moral imperative categorically ordains in the particular case; are referred in our troubles of conscience to the common-place utilitarian standard of the good of society. Moreover, what is to be said of the consistency of a philosophy which, pronouncing all knowledge to be phenomenal and relative, in the same breath

declares any affection of an individual self, let it be the sentiment or intuition of liberty or duty, to be more than relative?

It is the fashion nowadays among metaphysical psychologists to assume that we owe to Kant's critical acumen the modern doctrine of the relativity of knowledge, and they almost imply, from the great credit which they award him, that but for him modern science could not have existed. But the doctrine of the relativity of knowledge was not his discovery; we owe it really to the discoveries of the physiologists who made known the true functions of the senses; and it might be argued with some show of reason that if Kant were dropped clean out between Hume and modern science its positive gains would be very much what they are now. Whenever a good stream of positive scientific thought begins to emerge from its brooding latency into explicit light it easily runs into two different courses: the one an easy, vague, dispersive expression in theoretical and more or less ingenious disquisitions, by which it is soon dissipated in wasteful inanities of bog and marsh; the other, a slow, tedious, sober, and fruitful progress through patient scientific observations and verifications. The actual filiation was not from Kant to modern science, as his disciples assume, but from the stream of tendency of which Kant was a metaphysical offshoot. Hegel supplies an example of a similar metaphysical deviation from the quiet stream of positive science. The modern doctrine of organic evolution, or progressive development, as it used to be called, is much the same as Hegel's fundamental doctrine of the immanent spontaneous evolution of the absolute; indeed it is the same doctrine set forth in terms of matter instead of terms of metaphysics. Self-evolution of the absolute, progressing from *difference to difference*, these differences, themselves mere moments within it, being combined into higher and higher unity: the absolute impelled by the principle of progress within itself to higher and higher differences, and through them to higher and higher unity:—what is that but the progress from the simple and general to the complex and special which in Hegel's time was recognised as the

order of organic development, and which since his time has become known as the law of evolution through differences to more complex unities. To conclude, however, that the scientific conception of evolution, whose true modern parentage lies mainly with Von Baer and Lamarck, owes its origin in any degree to Hegel, would be grossly absurd. Indeed, it is pretty certain that if Hegel and all his works had been thrown into the sea, and no mention more heard of him and them, the scientific conception of evolution would not have been delayed an hour. Another striking example of the speculative deviation of positive thought from its true path of sober progress is in process of display at the present day. Since Darwin brought the doctrine of evolution into the full current of scientific thought, and aroused the eager attention of all the world to it, by his admirable exposition of natural selection as the main means of its accomplishment, there has been a large development of purely theoretical philosophy in which evolution has been tracked with overstrained ingenuity into all holes and corners of nature, and a word meaning the unfolding or becoming of things has been proved triumphantly to explain how all things have become. In the meantime the quiet stream of positive scientific inquiry into the particular problems of evolution, along which the real fruit will have to be gathered at the last, makes slow way and obtains little notice.

To return to the course of our inquiry. Having found the basis of freewill and of the moral sanction in the evolutionary *nisus* in its social sphere, I go on now to inquire whether some other fundamental beliefs are not similarly rooted in it. Without doubt there have prevailed very widely, though not universally, among mankind, the sad tradition of a lost or forfeited life of perfection and happiness and a dim expectation or the firm assurance of a future life of perfection and happiness. Now if we know anything certain of the beginnings of human life it is that man has risen in estate, not fallen from a higher estate—at any rate on earth, whatever may have been the case on the moon or on Mars when they were theatres of life; that there never

was such a golden age of peace and happiness as he has fabled; that he has never been greater and nobler than he is now. Moreover, if we can predict anything safely in this business from the basis of our existing natural knowledge, we can predict that though he may well rise higher than he is now, he will not have any such life after death as he has consoled and beguiled himself by imagining. Where then has he obtained his tradition of a glorious past? •Whence have come to him those immortal longings that make him feel

Through all his fleshly dress
Bright shoots of everlastingness?

Theologians naturally declare them to be the intuitions of a special religious sense, since they are sure the systematised knowledge of sense and reason cannot give a satisfactory account of them. Whencesoever derived, they must have their sufficient reason; their influence in human events has been unspeakably momentous; and no science of human nature can be complete which fails to take adequate account of them and their effects, and to tell us how they have come, if they have a natural origin. Are we not entitled to look upon them as the imaginative interpretations of an instinct springing into consciousness from the upward striving impulse which, immanent in man as part and crown of organic nature, ever throbs in his heart as the inspiration of hope, of aspiration, of faith in things unseen? Imagination, as its manner is, constructs modes or forms of satisfaction of the instinct in conformity with the co-existing state of mental development; and accordingly the schemes of future fulfilment invented by different peoples in different epochs do not fail to present a considerable variety, and to differ too in character according to the different characters of the peoples of the same epoch; not otherwise than as the 'bon Dieu' of France differs from the 'God' of a Scotch Calvinist. Certainly it was not difficult for man at any time to picture to himself a much happier life than he was living, since he could easily imagine it without its most urgent present sufferings, just as he could imagine men who were giants or

who lived for a thousand years ; it was not surprising therefore that he should conclude the feeling of a happier possibility to be either the consequence, the faint reminiscence, of a better life which had been actually lived before historical time, or the dim forefeeling, the prophetic instinct, of a better life to come—either a Paradise of the past or a Paradise of the future. We conclude then that these inventions, adapted, like poetical justice, to give the mind satisfaction in that wherein the nature of things denies it, have sprung from the instinctive forefeeling of a higher human destiny with which the *nisus* of evolution working in and through man inspires his imagination. Given the instinct, which is indisputable, it is easy to understand how all the rest must follow, when we reflect upon the way imagination has worked to people the unknown with extraordinary beings constructed after the fashion of its ordinary experience, but on a much larger scale of goodness and grandeur, or of badness and terror—gods, that is, of the earth and the air, of unseen upper and unseen under regions, anthropomorphic personifications of the unknown powers of nature that awed man into abasement and adoration.

The psychologist who discovers an adequate philosophy of mind by peering into his own mind, thus making his consciousness the measure of the universe of thought and things, is content to think he has explained something when he has pronounced it to be the work of *the* imagination or the imaginative faculty : by invoking diligently his own consciousness he has had this pregnant oracle uttered to him—to wit, that mind working in that mode which it is agreed to call imagination has done it. Meanwhile he reveals mighty little by the discovery to any one who has not the Brahmin-like faculty of obtaining intuition by gazing intently at his own navel. What we really want to know is not whether Imagination, *φαντασία*, *Einbildung*, or any other descriptive term has done it, but what is the foundation of this productive or creative function of mind which is so named, and what are its material correlates in bodily structure and function ? It is obvious that experience and reason can only acquaint us with the actual and its relations, taking us along the beaten

tracks of things as they are, and instructing us how to move from one to another; they never can, as imagination does, inspire and urge us to strike out the new paths of things as they are not; to combine and arrange the actual of experience into new forms of thought, so 'bodying forth the forms of things unknown,' and giving 'to aery nothings a local habitation and a name;' to frame theories that shall fit experiences never had, and to foresee and foretell what those experiences will be; to fashion ideals, 'creating every bad a perfect best.' These operations are the effects and evidence of the evolutionary *nisus* working in the nature of man, in mind as the highest outcome of it, and in imagination as the highest function of mind; wherefore the best products of imagination are the last events of the evolution of nature, they represent the highest becoming thereof through man. Here indeed it is that we catch nature putting forth the shoots of its latest development, many of them certainly vain and abortive, like the countless multitudes of seeds and germs that come to naught, but others of them that live and thrive, and so do their part to carry on the evolution of the great organism of humanity.

In this relation let it be borne well in mind always, that imagination cannot work in its best productive way except it be fed and sustained and informed by an understanding that is of large capacity and good culture, is in wide and exact and intimate sympathy with nature, social and physical, and thus gathers up what is behind and around, combines it in true forms of thought, and lays a sound and solid basis for the forward-reaching work of imaginative creation. Not voluntary nor even conscious are its workings; they are mobile, spontaneous, capricious, and uncertain, not subject to direct mental control and not to be explained by logic. The voluntary aim should be to lay up in a well-trained understanding a good store of co-ordinated material and of sound notional relations by which it may be fitly fed and informed. Goethe said of himself, 'What I have not loved I have never translated into verse or prose. I have never made love-poems when I was not in love;' nor did he write poems about nature without being informed

with facts gathered from every source, which he allowed to sink deep into his mind and to brood there until they came forth animate in fit imaginative forms of truth and beauty. Divorced from a good understanding, imagination strays into all sorts of fanciful vagaries—into reckless generalisations and ill-grounded hypotheses in science, into wild theories in politics, into extravagant inanities in poetry, into ill-conceived and ridiculous productions of art, into thin evolutions of all sorts wanting the substantial basis of previous involutions; but these abortive vagaries are so many proofs of the inexhaustible strength of its ever-budding life: countless variations that perish if so be that one live and thrive. Seldom indeed, not more than once in a century perhaps, is it inspired by the highest reason, and its work clothed in the forms thereof. To look back upon the incalculable amount and the inexhaustible variety of work which, ill nourished by observation, and ill informed by reason, it has done in the past, on the vast waste of energy which its records show, is to lay a solid basis of hope of the progress it will make in time to come when it shall be well nourished by sound observation and well informed by enlightened reason.

It is evident that true imagination is vastly different from fancy; far from being merely a playful outcome of mental activity, a thing of joy and beauty only, it performs the initial and essential functions in every branch of human development. And has always done so, even though its products, after having discharged their temporary functions, have dwindled and disappeared; for always it has peopled that realm of the ideal which has countervailed the oppression and gloom of the real. How could men ever have faced successfully in the first instance the unknown, vast and overwhelming forces of nature, how welded themselves under their pressure into the unity, confidence, and strength of social growth, if they had not created for themselves gods of the air, of the earth, and of the sea, of the hearth, of the city, and of the nation, whose anger they might hope to propitiate, and whose favour they might hope to win? Could the Israelites, though pliant, patient and tenacious then as now, have made their painful way through the wilderness

from the bondage of Egypt to the promised land of Canaan without their strong faith in the special and jealous God of Israel, greater than the gods of the heathen, who divided for them the waters of the sea, sent them food from heaven, caused water to gush out of the stony rock, set his interposing fiat between the dead and the living, and stayed the plague by which they were devastated? 'And the Lord prospered him in everything that he did, because he did that which was right in the sight of the Lord,' would be the approving comment that a Jewish historian would make upon the character and doings of a ruler who, outside the tribal or national bounds, had been a monster of savage iniquity, and who, had he lived now, would be thought to have earned eternal infamy. But the Jehovah of Jewish worship, though nominally accepted still, is virtually a conception of the past, like Jove, Vishnu, and Baal, and other extinct gods, having been practically superseded by a higher conception of Deity. For imagination is nowise disheartened because its offspring perish one after another; with never failing productive energy it goes on to create anew, taking refuge in heaven when driven from earth, throwing the soft glamour of the ideal over the sadness of the real, infusing the faith and hope that inspire the strife of life and console its close.

Let me take notice here how admirably the evolutionary *nisus* in its two aspects of the objective in nature and of the subjective in imagination is identified, becoming one, as it were, in the passion and fruition of love; how the sensual need and impulse works intimately with the imagination, inspiring it and clothing itself with the colours and forms thereof, so as to make the union the complete and ecstatic exercise of the energies of the whole being; a rapture of delight blending the individual and nature for the moment in an act which the most highly rational beings hasten to hide as a shame, and than which, objectively regarded, there is not anything more ridiculous in all the world. The supreme joy in nature is plainly production or creation, subjective or objective, and the supremest joy that productive activity in which they are identified. Behold how specially bride and bridegroom are adorned for the function,

and with what hymeneal joy and festivities their union is solemnised, as well in the bright homes of civilisation as in the cruelty-full habitations of the dark places of the earth; how vegetable and animal nature is arrayed in its most glorious apparel, and the irrepressible joy thereof bursts forth in multitudinous ecstasies and harmonies of odours, colours and songs; how man is transported with similar pleasure, not in the lower sphere of his sensual nature only, but in the ideal regions of art, poetry, and religion! For it is the privilege of his high and complex mental organisation to absorb and mentally transform the physical impulse and to expend its energy in ideal creations of the imagination—in spiritual generation.

If the imagination has so important and essential a function in the development of mankind as I have indicated, the question may well be asked whether, after all, the understanding is the only mint from which truth issues; whether in fact the imagination is not perhaps an organ of truths that are not truths of the understanding. Why should the last word be the thinker's? Or why should he think that in any matter he has spoken the last word? The understanding reveals a phenomenal world standing forth from a background of the unperceivable; for assuredly beyond all forms or modes of man's apprehension there is that which has not undergone, and cannot undergo, form or mode in his consciousness. Indeed, is it not the fact that every definite idea, every class of notions that we form, every piece of positive knowledge that we gain, is an arbitrary limitation and separation, and therefore in some sort a falsification? To separate in thought the particular part from the whole with which it is in essential continuity of living being, as we do when we bring it under our conditions of perception and conception, is to make it a dead fragment rather than a living continuity, in so far as we know it. However positive, definite, and true then knowledge is in relation to us, as relative, there is nothing more superficial and artificial in relation to the universal and absolute. In this vague and vast region of unlimited and unrelational, which the very recognition of a relative and limited world

of knowledge compels us to postulate, and which we may please ourselves to talk of as 'the thing-in-itself' or the absolute, though both expressions are meaningless,¹ there is manifestly room enough for an unlimited play of the imagination. Is it then perchance that in this function of imagination there beats the illuminating pulse of higher being than sense can apprehend? Perhaps it is that the infinite past thrills in us, making a tone of vague feeling that we cannot apprehend in thought or express in words, and giving us, as the connecting present between two eternities, the dim forefeeling of an endless continuity in the future; that it is this formless thrill of unity with the whole and of continuity without end, to which no adequate reaction on our part is possible in thought or deed, which is the inspiration of imagination and the basis of morality and religion; and that we have here a case in which doubt inspired by the understanding overthrows beliefs to which a larger doubt of the range of the understanding brings us back under the authority of imagination. What truths of religion then, that are not truths of the understanding, may not imagination properly construct on the basis of this unfathomable moral or religious consciousness?

Assuredly it may construct a great deal in that sphere, since its energy is inexhaustible, its exercise a pleasure, and it has ample scope enough; but the real question is whether it is qualified to construct truly there, when it does so in defiance and even in direct contradiction of understanding. In the progressive *becoming* of knowledge imagination antici-

¹ Not to go back to what has been previously said about this matter, I may simply note here that, inasmuch as all meaning cannot be other than relative, the only absolute, if any, is that which we get in the relative, the only 'thing-in-itself' that which we get in the phenomenon: that is to say, we know nothing of the absolute until it is no longer absolute, of the thing-in-itself until it is the thing-out-of-itself. Hardly less imbecile is the assertion that the absolute, though not a conception, is yet a state of consciousness. As if every state of consciousness were not just as relative as any conception. The vague feeling or dim notion that we think we have of the absolute is really the relative with as many of its relations as possible got rid of—the most general and abstract relative, in fact, that we can arrive at. Obviously any particular absolute, such as absolute truth, absolute good, must be a greater absurdity still.

pates understanding, foretelling the immediate *to be* before it definitely *is*; in the common use of it in scientific inquiry, for example, the theory which it constructs precedes the demonstration by which, after being tested and proved by the understanding, it is made knowledge; and so it does actually go beyond the range of understanding, stretching forth into the future. But only from the basis of understanding, to come back to the test of understanding, if it is of sterling value. What sort of theory is that which is not based upon a competent appreciation of well observed facts and their relations? And what sort of imagination that which is not based upon good, well trained, and well informed understanding, and can in turn appeal to the test of it?

Those who think to find a source of revelation in imagination should consider that, constructing for us things that are not, and sometimes things that could not be consistently with the fundamental laws of mental evolution—for a truly based creation of the imagination, such as a character of Shakspeare's, is more true than the particular real, since it contains the essence of all the particular reals of that kind, as perceived by a man of genius, and by him embodied and exhibited to us in it—it has been the cause of most of our errors. They would not do amiss to reflect on the great multitude of false constructions that have been made by it since the beginning of its work upon earth, and to examine whether the plain effects of some of them have not been, as the larger use of them may be in the future, to promote not evolution but degeneration of the human kind. For it is not unlikely that natural selection will act to lead mankind downhill at the last to their extinction as effectively as it now acts to lead them uphill. However that be, these things we ought to make clear to ourselves in the matter—namely, what we can affirm positively, what we can deny positively, what we must be content to leave unaffirmed and undenied: we are sure and can affirm that a fundamental impulse of evolution is felt in the higher functions of mind; we are sure and can affirm that the impulse comes from afar and is more than personal in any proper sense of the word; we are entirely in doubt what it is essentially, whence it

comes, and whither it tends, and are sure that any positive and definite answers that we make to such questions must be fables of the imagination.

Here we might properly take notice how much the operation of the imagination in defective and deranged states of the nervous system has had to do with the generation and sustenance of supernatural beliefs and pretensions. Many erroneous beliefs of that character have their origin in a defective development of the understanding, such as is natural to savages and children. Witness, for example, the superstitions of ill omens which have so strong a hold on barbarous peoples, and indeed are not extinct in the most enlightened countries. Two events occur near together, whereupon they are connected in the mind as cause and effect, though they have no causal relation whatever, their concurrence or sequence being quite accidental. Causality being a form of thought under which we perceive events, it is the fundamental and universal apprehension of the understanding, and an easy error of it is that sequent events are consequent; for mankind perceived causality long before they perceived true causes, and so hastened always to find causes where there were only coincidences, and to imaginatively invent them when there were none discernible. The search for causes, the instinctive need to find out some antecedent or connection for a phenomenon, I take to be the consequence of a deep practical intuition that we and all we see are related parts of an embracing whole, whereby we cannot bear to leave an event suspended in the void, as it were, but are driven always to endeavour to attach it somewhere. It would be impossible to estimate the number of erroneous inferences and beliefs and superstitions that have sprung from the operation of that instinct—from the glad and exuberant exercise of the imagination to supplement the defects of inadequate understanding.

But besides these products of an imperfect basis of knowledge, a great many supernatural manifestations and revelations have been the manifest progeny of a brooding imagination operating from the unsound basis of a disordered reason. A strange and grotesque progeny sometimes

those products, but not without extraordinary influence on the events of human history. We may read there, if we will, how hallucinations of hearing have been accepted as voices from heaven and hallucinations of vision as divine apparitions, and how whole sections of communities have been infected with a fanatical admiration and a devout worship of the delusions of a monomaniac. It is certainly a very remarkable thing, when we consider it well, that disorders of the nervous system have played so great a part in those beliefs which, being deemed to be of a spiritual order, are esteemed man's best possessions. What then shall we say? Briefly no more than this at present—that some of these disordered ideas were the accidental concomitants of a genuine stream of tendency, incidental offsets of its progress, so to speak, and of little more essential significance than the foam in the steamer's track; and that others of them were the accompaniments of a process of degeneration that is going on constantly side by side with a process of evolution. Not all peoples survive and advance, nor all sections of a people, nor all families of a section, nor all individuals of a family; it is only a chosen part, and that a small minority of the whole, which carries forward the progress of humanity; the huge majority is at best stationary and for the most part actually occupied in degenerating. In such case false beliefs, though accepted devoutly as of supernatural origin, are the expressions of a defect or degeneration which they in turn help to increase. The gods or other ideals which a people of a barbarous and brutal nature creates for itself and worships, being in their characters the reflex of its character and development, become causes that contribute to perpetuate and increase the degradation of the people; and among civilised people in like manner, both in the general and in the particular, the worship of false ideals is a powerful cause of degeneration. The language is in want of a convenient word to denote the opposite of a true ideal—a word such as anti-ideal—that might fitly express the aim of tendency which went opposite to, or was a positive deviation from, the path of progress of humanity in any direction.

Enough concerning a matter which, never yet treated systematically as its importance deserves, would require very detailed treatment to have justice done to it: suffice it here to say that however it be that supernatural revelation comes, whether from defective development or from derangement of understanding, this much is certain, that in no case can it come to us otherwise than through man and conditioned by the limitations of his nature; he is the channel of its flow to us inevitably, whatever be the source, and therefore he may be, for anything we can tell, the perverter or the actual creator of the message. In this matter, as always, the direct testimony of the witness is liable to two serious fallacies—first, that he may be deceiving us, and, secondly, that he may be deceived himself; and accordingly we cannot be sure we are not the victims of imposture or of hallucination, or, as not seldom happens perhaps, of a mixture of both. For certainly the monomaniacal enthusiast is apt to advance through self-deception into more or less conscious imposture; his expanding course being commonly to be deceived himself, then to deceive himself, and in the end to deceive others.

In this relation it is most necessary to bear distinctly in mind that forms and ceremonies, stereotyped propositions, articles of faith and dogmas of theology do not constitute the essence of religion but its vesture, and that, apart from all such forms and modes of interpretation, it responds to an eternal need of human sentiment. For it is inspired by the moral sentiments of humanity and rests on the deep foundations of sacrifice of self, devotion to the kind, the heroism of duty, pity for the poor and suffering, faith in the triumph of good. It appeals to, and is the outcome of, the heart not of the understanding, and so goes down into lower depths than the fathom-line of the understanding can sound; for the intellect is aristocratic and the heart democratic, knowledge puffing up but love uniting and building up, and the true social problem is to democratise the intellect through the heart. It is the deep fusing feeling of human solidarity, in whatsoever interpretative doctrines and ceremonies it may be organised for the time, that is religion in its truest sense; for it is in the social organism what the heart is in the bodily

organism, and when it ceases to beat in conscience, death and corruption ensue. The pity of religious formulas is that they so often carry men's thoughts away from the abiding and essential reality to an exaggerated appreciation of the passing forms and representations thereof. As his enemies put a false robe of royalty on Jesus when they led him to death, so have his followers since that time put a false robe of divinity on him, and so done much to lead religion to death. Those who criticise a particular religion, were they wise, would leave the sentiment untouched and do their work sympathetically, not in hostile antipathy. To pour indignation, scorn, ridicule, satire, and invective upon its extravagances and inconsistencies is not the whole method of criticism, nor indeed the best method in the end to accomplish the destructive work aimed at.

Another large reflection springs naturally here from the foregoing one—namely, the reflection that the great evolutionary impulses that move society and effect great social revolutions do not spring from science or philosophy or knowledge in any shape, but from obscure popular fermentation; not from the clear understanding, which killeth, but from the troubled heart of mankind, which keepeth alive. It was not in the academy nor in the Lyceum, but in the manger of a stable, that Christianity was born, and its earliest adherents were illiterate and ignorant people gathered from the dregs of the populace. The masses of oppressed toilers for a bare sustenance, sunk in poverty and worn down with labour, what care they, or can they ever care, for the scientific discoveries that are the chief glory of the age? If it takes a man all the labour of his life, doing nothing else, to know one special science, it is evident that the great majority of mankind can have but a very small portion in any science. Moreover, knowledge by itself is not necessarily good; it is power certainly, but power for ill as much as for good. The result of its increase is to make the few who cultivate and possess it more powerful, and the many who do not less powerful; to raise those who are high and to degrade those who are low; to make the rich richer and the poor poorer; to increase inequality without yielding anything to fill the

intervening gap. Now increase of inequality means in the end revolution and a new social fusion, in any people that has not fallen altogether out of the line of progress. Great social revolutions are the antecedents of new evolutions; from the terrible fusion which they make of widely separated classes and interests there is the birth of new social forces; they prevent the disintegration of humanity by preserving its solidarity. A fraternity based upon knowledge alone would want a consolidating cement and could not hold together. It is worthy of notice in this relation that the great monotheistic religions—Judaism, Christianity, and Islamism—have shown themselves hostile to science, moved thereto perhaps by a deep and just instinct; for they represent and bear witness to the prodigious labour and pains, the tears and toil and blood, that were needed and have been spent to bring man into complex social union; they may well therefore show an apprehension of social disruption and an instinctive repugnance to that which in any wise threatens so great a calamity. We are taught by the Jewish fable which has become the creed of Christendom that it was through an unwise ambition of power that the angels fell, and through an unwise ambition of knowledge that man fell; and these traditions betray the deep intuition that it is not on knowledge, which separates, nor on power, which tyrannises, but on sympathy of feeling, which unites, that society is founded and built up.

Those who are enthusiasts enough to believe in the regeneration of society by the direct action of science, and who think it an unmixed good that the most earnest intellects of the day should be absorbed in working out some of the smallest details of a special science, would not do amiss perhaps to set to work to prove to the world that it is more moral to travel at the rate of fifty miles an hour behind a locomotive than at the rate of ten miles an hour in a stage-coach. One effect of the great modern progress in the industries, arts, and various modes of material well-being has certainly been to generate many new desires of a selfish kind, the eager and incontinent gratification of which is corrupting. Has it done much yet, or indeed anything, to compensate for these egoistic developments? Nay, has it not rather

weakened the great controlling force of religion which formerly kept egoism in check, without putting any altruistic force in its place? ¹ It would not be easy to prove that it is an advantage to accumulate riches if men decay, to wear fine clothes and to lose fine manners, to replace quiet country villages by miles upon miles of dreary town-suburbs. Are the people who inhabit these monotonous suburbs really nobler, better, happier than the more simple villagers whom they have displaced? They read their daily newspapers as they travel rapidly by railway to gloomy offices of business, into which the direct light of day can hardly penetrate, and perhaps a journal of scandal or a sensational novel in the evening when they have returned from their monotonous labours to their dull domesticities; but are they really better cultivated, or even so well cultivated morally, as their forefathers who walked on foot to their work, had no newspapers, and read no more books than the Bible and two or three others of a religious character? After all, an act of heroic self-sacrifice is a nobler thing, and more civilising, than to send a message instantly from London to Hongkong.

It appears then at the best doubtful, when we consider the matter frankly, whether there is in the progress of scientific knowledge and of the arts, industries, and material comforts founded on it the promise of a real advance in true social development; whether in fact knowledge is not in this respect pretty nigh impotent. The experience of the ancients would seem to indicate as much, who were certainly equal, if not superior, to us in architecture, in sculpture, in poetry, in eloquence, in philosophy, in literature, since they failed

¹ Any one who looks forward with a light heart to the overthrow of Christianity might do well to consider what can ever adequately replace it merely as a social and humanising force. Let him ponder seriously what its organisation means, and reflect what sort of organisation will be necessary to take the place of the Church which, standing in almost every village throughout the land, the visible token and the sacred home of man's highest aspirations, its pavements worn by the reverent tread of generations that now rest in hallowed ground around it, solemnly initiates the individual into the social union, calls him to regular acknowledgment of his social duties, admonishes him of the vanity of life and of the eternal consequences of the deeds done in it, sanctions with its blessings his nuptial unions, and speaks solemn words of comfort and hope at the hour of death.

to develope out of these the forces of a higher social evolution. For what happened? With all the intellectual acquisitions of Rome coming on the top of those of Greece society went steadily towards destruction, and all that philosophy could do was to proclaim and lament it. Then was born of low parentage in a most mean way in a distant corner of the empire a person who passed in entire obscurity thirty years of a life which ended at ~~thirty~~ thirty-three years. For the three remaining years that he appeared in public he was scouted as a miserable impostor, rejected by the priests and rulers of his own nation, hardly thought worthy a few words of contemptuous mention by the historians of the day, followed only by a few of the lowest persons of the lowest classes of society. At the end of his brief public career he died an ignominious death on the cross, betrayed by one of his own disciples, denied by another, abandoned by all.¹ And yet in him was the birth of the greatest social force which, so far as we know, has ever arisen to modify human evolution. To have predicted it beforehand, nay, even so much as to have formed the dimmest anticipation of its coming and nature, would have been as impossible to all the intellectual insight of the time as it would have been impossible to predict, before experience, the organic molecules which carbon, hydrogen, nitrogen, and oxygen are capable of forming. The momentous fact may well abate the pretensions of philosophy to forecast the future of humanity: suffice it to know that if it is to progress, it will, as heretofore, draw from a source within itself, deeper than knowledge, the inspiration to direct and urge it on the path of its destiny.

Continuing the inquiry into the foundations of widespread traditional beliefs which are not derived from observation and reasoning, since some of them blankly contradict observation and reasoning, let us consider the doctrine of a personal immortality. It was a natural product of primitive imagination; so much so, considering how imagination works, that it would have been a wonder if it had not been

¹ Enfin il meurt d'une mort honteuse, trahi par un des siens, renié par l'autre, et abandonné de tous. —*Pascal*.

constructed by it out of observation, and is perhaps a wonder that the belief is not universal. Nothing perishes absolutely in the universe; matter is neither created nor destroyed; it is in a continual flux of becoming and unbecoming, disappearing in one mode to reappear in another; there is no death in the sense of annihilation. Here then may have been the foundation of a vague notion that man will not all die. His body might return to the dust of which it was compounded, going through a corruption in the process that was well fitted to stir an active repulsion to the notion of death, but it was not easy to believe that all his high aspirations, warm affections, noble sentiments, lofty thoughts, should lose their individuality and vanish into nothingness with the loss of the bodily individuality. For although time was when they were not, the difficulty is much greater to conceive them not being after his death than it is to conceive them not being before he was born.

It will be objected perhaps that a vague observation of the indestructibility of matter, if made—and assuredly it was made—could never suffice to found a belief of personal immortality in face of the positive experience that all living things die and undergo decomposition, going down to the earth and returning not from it. Bear in mind, however, in relation to this objection, that many living things seem to die, and were thought to die, and yet do not die, but put on life again after a season of death-like repose. Of the seed put into the ground, which he ignorantly calls dead, the Apostle Paul, addressing his imagined opponent in his usual energetic fashion, says, ‘Thou fool, that which thou sowest is not quickened except it die:’ an observation incontrovertibly adequate to generate the notion of a resurrection, seeing that the Apostle actually bases upon it his argument of the certainty of a bodily resurrection. It has been a common comparison of the race of man on earth to leaves on trees, now green in youth, now withering on the ground: what more obvious and natural than to see in the periodically awakened life of recurring springs the probability of a human resurrection to life after a period of apparent death? True it may be that the comparison ought rightly to be a

contrast: that, as the Greek poet wails mournfully, although the mallow and the green parsley and the full-thriving anise come to life again and blossom afresh in the next summer, we, whether great or strong or wise men, once we are buried in the earth, sleep a long, long eternal sleep, from which there is no awaking; but if it be so, it is still certain that the natural tendency and desire would be, as I have pointed out, to figure things otherwise.

Is it alleged that these kinds of analogies are too subtile to have ever been perceived by the rude mind of a savage who yet has some dim notion of a life after his body's death? Be it so: it will hardly be denied then that the vivid apparition of a dead person in dreams would be enough to suggest to the lowest savage, nay to compel him to the belief of, the persistence of some sort of shadowy life after bodily death. At a very early stage of human development such apparitions of the dead, in their forms and habits as they lived, could not fail to produce a conviction that although their bodies had perished, the forms or phantoms of them survived, lingering disconsolate in the neighbourhood of their old habitations and interests. And that is very much the savage's vague notion of a soul, if he has any notion at all; an image rather than an idea, something more thin, faint and fine, less tangible, than the body; a shadowy apparition of the pale, wan form of the dead person, which was probably supposed also to leave the body during sleep and to return to it at awaking. Naturally too he believed that his dogs and horses had similar souls; for which reason it was right to bury them with the dead chief, along with his bow and arrows and the slaves perhaps who were killed to attend upon him, in order that his ghost might be fitly furnished and attended in his new sphere of existence. It is impossible seriously to compare this kind of notion of spiritual life with the modern notion of soul, or rightly to call it by the same name, so little have they in common; it is only comparable with the vulgar notion of a ghost that prevailed generally at one time, and still prevails among the ignorant, in civilised countries, or with the spirit-forms that are evoked and exhibited at so-called spiritual *séances*. To discover the notions of soul and

God in the mind of a low savage is very much like an ingenious discovery of the steam-hammer in the stone which the monkey uses to crack a nut.

It is not in dreams only, however, that a vision of the dead may be seen, for a waking person shall see sometimes a similar apparition; and it is a long time before a people reaches that height of critical culture which enables it to know that the ghost so seen is a trick of the nerves, a hallucination of sense. Now in respect of such a vision it is plain that a savage would be under a twofold inevitable drawback: in the first place, he could not have the least suspicion that what he saw was a coinage of his brain, not an objective reality, and must therefore theorise about it as a real thing of its kind, though not of his kind: in the second place, in his undeveloped mind with its few and child-like ideas of the concrete and their few and simple associations; with that tremulous fear too of the unknown common to him with children; and with the activity of an imagination unballasted by reason, and prone, as in children, as in dreaming and in madness, to make the concrete notion a reality;—the vivid idea of the spirit or ghost of a dead man would far more easily dominate waking sense and so give rise to hallucination, than it would in a mind amply stored with abstract notions of the relations of the concrete, and in other respects fully developed. Thus he is at the same time more susceptible to hallucinations and less capable of correcting them. If he cannot distrust the vivid apparition of a dream, how can he distrust the vivid and more startling apparition of waking life? We may feel the less averse to accept this theory of the origin of a belief in ghost-like apparitions of the dead among savages, if we consider well how large a part beliefs in invisible spirits that sometimes become visible have had in the beliefs of civilised nations, and how much the hallucinations of fanatical enthusiasm have helped in the propagation of religious creeds.

Another important fact which we ought clearly to apprehend and fully to comprehend: that although the man dies humanity does not die, the death of the individual being a necessary event of the life of the race. He, though dead, is

still a part of living humanity, a coefficient in its movements, in so far as what he has done contributes to its weal or to its woe: in the influence which he has exerted through his deeds and through the children whom he has perhaps brought into being, the good or ill that he has done lives after him. The dearest of deaths is never a complete death. As he cannot stand alone in life, separate and self-sufficing, but as one in a company, a unit of society, must needs give and take, becoming debtor and creditor before he is aware of it, so death does not isolate and end him; for as none liveth to himself so none dieth to himself, and those who follow him suffer or gain inevitably by what he has done to help or to hinder the progress of his kind. Those especially with whom he has lived in intimate intercourse, who have been witnesses of his struggles and shared in his interests, who have sympathised with him in his failures and rejoiced with him in his successes, in whose thoughts and feelings he has filled a large place and of whose being he has been a great part, cannot be entirely rid of him when he dies; for he has entered as an element into their mental nature and habits, and he lives on there after his death, it may be in a continuing and even multiplying increase from generation to generation. Is it not soberly true of a great benefactor of mankind that he has a larger and fuller human life after death than he had when he actually lived? Putting off mortality he puts on immortality. If then your dead mother, or sister, or lover, or child has such a continuing life in you, it may well be for you a hard and repugnant, perhaps an impossible, thing to conceive him or her as having undergone the death of annihilation. For how can he be annihilated who, being a part of your happiest memories, is still living in you? He is not annihilated for you until you are annihilated; and indeed not then so long as your influence lives on in those who come after you. Naturally it is a much easier matter, indeed a matter nowise difficult, for you to suppose that a rickety Chinese baby which drew only a few gasps of breath some three thousand years ago is not now enjoying eternal life, or to imagine the eternal death of a Choctaw Indian's worn-out squaw who died a thousand

years before Columbus discovered America. It is not here alleged, be it understood, that the belief in a personal immortality sprang from a clear conception of this continuing life in others: all that is supposed is that the strong instinct thereof which experience could not fail to infix would stimulate the imagination to clothe it in some ideal form. Rather would it seem that the clear conception belongs to the future, being that into which the prevailing belief of a spiritual individuality after death is likely with the advance of knowledge to merge: a life in very truth spiritual since it is in the spirits of them that bear witness to it that it lives.

Lastly, consider this: that when the drama of life ends prematurely by a tragical close—that is, when the individual is cut off suddenly in the budding spring or full summer of his energy, before his desire to do and be is waning or extinct, there is an earnest longing to do more, a fearful aversion to realise that it is the end, an instinctive craving for the continuance of a life not yet fully spent, which translates itself easily into the belief of a life to come. Hence it is that the desire and belief of a future life are stronger and more manifest in those who die young or in middle age, especially if from accident or from sudden disease, than in old persons who die of wasting disease or by the slow process of natural decay; for in these the waning of vital energy is the waning of the desire to live; and though they may hold to and repeat the formulas of their creed, they do it in a quiet, formal, automatic way, very much as they continue methodically the habits of their lives or perform their customary slow and measured movements. Worn out at last by the infirmities of age, the one thing they heartily desire is freedom from disturbance—rest. Not only by the individual who perishes timelessly, but by those near and dear to him, is the natural unwillingness felt to believe that so premature an end can be the end; for when death has snatched suddenly away one who had just begun to love and be loved, whose wisdom was but half blossomed, his work not yet half done, it seems to them impossible to acknowledge that he was created only for such an abortive result;

they are constrained to hope that the fair promise of development, blasted here, will have fulfilment elsewhere.

Is the longing for immortality then essentially the sublime utterance of human egoism, and the expression of it perhaps the statement in terms of *extension*—that is, as eternal, of the *intensity* of the feeling of life-love which is not otherwise adequately expressible? 'Tis much, in fact, as, according to Coleridge's apt remark, two ardent lovers try to express the *intensity* of their love by describing themselves as 'Yours for ever.' How indeed can the sense of *being* feel, or the notion of *being* adequately conceive, the sense or notion of *not-being*? From the subjective basis alone it would seem impossible that I, being, can conceive myself as not being; to do so would be to be and not to be at the same moment; wherefore from that standpoint the intensity of the feeling of life becomes naturally the extensive hope or belief of an eternal life after a seeming death. But the matter has quite another look when one has recourse to objective observation; for there is no great difficulty, as I have said before, in conceiving the eternal death of a baby that lived only a few minutes in an Indian wigwam ten thousand years ago. In like manner one may attend in imagination at the destruction of one's own body as it undergoes corruption in the grave, organ after organ in due course according to the tenacity of its structure, until it mixes indistinguishably with the surrounding soil. Is it then that a subjective illusion of ever-being requires, like other subjective feelings, to be corrected by objective observation? The true measure of time is not the feeling of duration but the watch, the true measure of temperature the thermometer. Here again may we take instructive note what good reason theology has for its instinctive antagonism to science and for its inseverable adhesion to metaphysics.

Is it true, as we are taught, that we have the instinct we are strangers and sojourners here, and belong permanently to another kingdom than the passing kingdom of this world? It is not true that the instinct is universal, but it is certainly true that we have here no abiding place, and that we and

the changing fashions of this world shall pass away. How can it be otherwise, since this world being the world that each one's senses fashion for him must be as transient as they are? It is the internal synthesis which he makes of the infinitesimally small fraction of the whole to the molecular vibrations of which he is sensible. When the functions of sense cease at death, and the mental organisation that they have built up undergoes dissolution with the rest of the bodily parts, these become again a part of the whole out of which it came into temporary being, entering into and resuming their rights in those cosmical operations whose range is outside the sense-built world of human experience. From the standpoint of the individual the world was not before he was and will not be after he is not.

This we may say at the end of these reflections concerning the natural modes of origin of a belief of personal immortality—and there is perhaps little more to be said—that the various imaginative constructions which different systems of religion have built up respectively to give the mind the stay and satisfaction of positive conceptions in that wherein its nature and the nature of things deny them, useful and essential as they have been in the process of human development, may not on that account have any more basis in the fully developed intellectual life of mankind than an embryonic organ of the body, the functions of which cease soon after birth, has in the bodily life of the adult individual. When men do not know the truth they do well to agree in common error based upon common feeling, for thereby their energies are fixed in the unity of definite aim and not dissipated to waste in restless and incoherent vagaries. No doubt the provisional belief may be in many respects harmful, as the belief in immortality would certainly seem to have been; for it has been the direct cause of numberless sacrifices of animals, of slaves, of women, on the tombs of men; the occasion of a complete machinery of extortions by priests to have masses said for the souls of the dead, or to obtain their intercessions; has too often dimmed the hope and weighed down the energy of this life by the overhanging dread of an eternity of suffering; has lessened generally the sense of the value

and weakened the conscience of human life on earth, by precluding the just feeling of present responsibility for the endless consequences of every act done in it; and has entailed several other ills that might be mentioned. But these ills may be deemed the compensating offsets of a preponderating good, so long as the belief has genuine vitality. To idealise the real, and thereafter to present the ideal in concrete notion or sensible form and to pretend it is the real—that is the law of the *nisus* of man's mental evolution, the pleasing means by which he is duped into development.

Passing from these reflections, though they might easily be continued to a much greater length, I now advert briefly to two more religious beliefs that are of transcendent magnitude. The first is that of the Atonement. How came it to pass that men ever conceived naturally the notion of the redemption of the whole human race by the sacrifice of one person through a painful and ignominious death? Development they could perceive plainly in nature, and degeneration they could perceive; but how conceive the notion that a great vicarious sacrifice of God incarnate as man was required and made in order that God might fulfil His purpose of increasing development and lessening degeneration? It will be said, perhaps, that the stupendous strangeness and uniqueness of the conception were the natural consequence of the fact that it did not and could not come naturally, but did come supernaturally; that its natural improbability was just what might be expected from its natural impossibility. Is the notion then so extraordinary, so independent, and so unrelated, so entirely a thing-of-itself, that it must have come by special message from supernatural sources to a select fraction of the human race? or may it not have come as the culminating development of other notions of the same kind, but of lesser magnitude, that have prevailed in divers forms among all fractions of the race? There cannot be a doubt that the rite of sacrifice by which guilt was expiated or blessings gained was one of the most remarkable and constant observances of different religions; and it is not therefore any violation of probability, nor any violence of legitimate scientific inference, to suppose that the supreme sacrifice of the

only Son of God was the grand climax of this notion of vicarious atonement. For naturally in such sacrifices it was best that the victim should be as rare and spotless as possible, the value and efficacy of the sacrifice increasing with the purity and rarity of the thing offered. Now certainly there could not be a more rare, more pure, more costly sacrifice than that of the only-begotten and well-beloved Son of God. Abraham's designed sacrifice of his son Isaac, Jephthah's sacrifice of his daughter, Agamemnon's sacrifice of Iphigenia, and the like instances: what more probable stepping stones to the stupendous notion of that supreme vicarious sacrifice for the whole human race? Plainly evolution in that direction has come to an end now; it has reached a matchless height in the climax of the conception of sacrifice, and cannot ever go a step further; and any change in time to come must be the undoing change of dissolution.

It is not perhaps hard to understand how the notion of vicarious sacrifice, once it had come to be, reached its supreme evolution. But what is not so evident is how the original idea came into being. Most likely from the wish to placate by suitable offerings—the more costly and precious the more acceptable—the terrible gods and other mysterious powers with which primitive imagination peopled nature, and in particular the special guardian spirit or God of the family, the city, the tribe. Man approached his gods as he would have approached an earthly tyrant whose favour he desired to win or whose anger he hoped to propitiate, by humbly presenting to them offerings of that which was most precious to him, or what custom ordained as by them most esteemed. If he had not or could not obtain that which he desired to offer, as being too costly or not in the nature of things procurable, he substituted in lieu of it some other offering to please the propitious or to appease the incensed Deity.

This fact also we ought to apprehend and consider well—that vicarious sacrifice is implicit in the constitution of society; the very structure of which is based upon the principle that we suffer for one another's sins, bear one another's burdens, expiate one another's errors, profit by

one another's gains, gain by one another's pains.¹ It is an immanent law of the constitution and development of the social organism, and very manifest in its elemental factor or unit—the family: the solidarity of mankind in social union the basis of it. Children suffer the bitter pains of their parents' wrong-doings, who themselves go through many labours and sorrows in order that their children may have joy and gladness; the wife is the innocent victim of her husband's sins and reaps the fruits of his painful toils, as he in turn suffers the penalty of her failings and profits by her virtues—each benefiting by the pains and gains of the other; the idle, reckless and improvident live on the fruits of the labour of the industrious, prudent and provident; the greatest benefactors of mankind have often been the greatest sufferers at its hands—have died some of them publicly as known, many of them in obscurity as unknown, martyrs of humanity. Without doubt all guilt is avenged upon earth, but never wholly, and sometimes hardly at all, upon the individual sinner. Everywhere the same story meets us: that vicarious atonement and vicarious recompense are essential principles of social union. To forgive one's enemies and to do good to them that use us ill should not be, as it commonly is, the hardest task of Christian humility, or the highest reach of philosophic indifference, but the easy and natural result of a just and adequate view of one's social debtor and creditor relations. If now this principle of vicarious suffering was implicit in the earliest social development, and the necessary condition of that development, is it any wonder that some faint and vague adumbration of it, some dim intuition of its meaning, should have been revealed to the minds of the early leaders in the social movement, and inspired and initiated those rites of sacrifice that have been such marked features in many religions? To say that a divinely endowed being was sent into the world to make atonement for mankind by suffering the penalty of its sins, and so to redeem it from a fate of unending misery, is to say that nature developed the means by which nature was made better: in other words, the organism of humanity, having reached a certain stage of evolution, gave birth to a

¹ See Cardinal Newman's *Grammar of Assent*.

supremely endowed organ by the functions of which its future development was determined in the right direction—in the direction, that is to say, of that moral which is true social progress. The supreme atonement was the personification and glorification of the social principle of vicarious sacrifice. That is seen to be the true meaning of it when we look sincerely at facts, and do not leave the solid ground of their relations to busy and beguile ourselves with discussions in the air concerning a unique, entirely detached, and transcendently mysterious event.

The other widespread religious, or rather theological, belief to which I advert briefly is that of a personal God. In the order of development the belief in many gods preceded the belief in one God. Ignorant and comparatively helpless as primeval man was, as he stumbled blindly along in his career, awestruck with vague and vast terror of the encompassing unknown in relation to which he could not make definite adjustments of conduct nor frame distinct apprehensions of feeling and thought, his imagination gave anthropomorphic personifications to the vast and mysterious powers whose laws of action he did not in the least understand. Knowing nothing of forces that overwhelmed him, and yet obliged every moment to act in relation to them, he was continually offending against them and suffering for his offences. The aspect therefore in which they were presented to him was that of angry and terrible powers, evil-inflicting, hidden, all-powerful, before which he prostrated himself in abject fear and abasement, eager to appease their wrath and to win their favour by supplications and sacrifices. All which was natural enough: how could he account for their mysterious and seemingly malignant workings, how represent them to his intelligence, except by imagining, from the basis of his own experience, hidden beings who acted from like vengeful motives to those which actuated him and his fellows, only with vastly greater power? The generalisation warranted by his observation and experience, so far as he could make it, would be the generalisation of almighty malignity.

It was no less natural that fear abated as knowledge grew by slow and minute increments through the ages, as more and more the discovery was made of natural laws uniform

in their operations, and as more and more clearly he perceived he could by conforming to those laws turn them to his profit, gaining victory after victory through obedience; that god after god receded further and further into the background, waning in power and consideration as new provinces of knowledge were conquered successively, and finally expired; that the personal action of those gods which were left became more and more remote, obscure, and indirect; and that at last he was brought to the recognition of one God, Maker of heaven and earth, who ordained and governed all things by laws which were the manifestations of His will. The necessities of thought compelled him to posit somewhere at the back of known causation, at the beginning, that is to say, of the series of causes upon causes which he could trace backwards in endless regress, a self-existing cause—God, substance, nature—to which no antecedent cause was conceivable. Now this great conception of one God absorbing into Himself all other gods, and leaving them no continuity of being but in Him, is plainly the last term, ‘the consummate flower,’ of god-fashioning evolution; there can be no farther progress henceforth in that direction; a final conception has been reached beyond which it is impossible for human thought to go.

Always has it been necessary for man to make for himself some sort of mental synthesis of the world around him in order to live in it. He must bind phenomena into a unity of some kind; otherwise he would be the play of scattered and unconnected impressions succeeding one another without any tie, would have no sense of continuity, and could not so much as look out on it intelligently or act methodically in relation to it: moral and intellectual development would be impossible. The unifying impulse is indeed instinct in living matter both in its conscious and its unconscious relations: it is the base of the so-called principle of individuation which has been defined as the essential characteristic of life. For the body is a synthesis, each organ of it a synthesis, each element of each organ a synthesis: organic life is kept up by the maintenance and organic growth by the increase of a synthesis. Life in mind in like manner is not possible save

by virtue of a unifying impulse that is itself the necessary expression of bodily unity or synthesis. How then must it necessarily manifest itself in relation to external nature at a time when, ignorance of matter and its properties and relations being almost complete, no approach to a scientific synthesis was possible? By the imaginative construction of agents dwelling and working in nature—that is to say, by the fabrication of demons and deities; to be followed at a later period of the advance of knowledge, when demons and deities fell into discredit, by the creation of metaphysical entities dwelling in things, which took upon them the functions of the extinct gods. Always, however, is synthesis of feeling deeper than intellectual synthesis: a man may have no very definite and consistent theory in the conduct of his life, but none the less will his mental construction of the world follow consistently an unconscious synthesis springing from feeling and character; so likewise in primitive man the synthesis of feeling was prior to that of thought, and inspired his grotesquely imaginative interpretations of nature, as it inspires now the particular mental theory of the world which each individual constructs for himself. Consider the matter well, without flinching from the logical issues of reflection, and is it not the fact that the unity of a science, which so much delights its pursuers now; that each scientific synthesis in it which the pleased and patient worker contributes to build up the whole; that the grand conception of the unity of all science, which kindles flaming outbursts of philosophic rapture; are just as much subjective creations on our part, mere modes of our knowledge, as ever were demons and deities, and for aught we know may have little more valid foundation in objective reality?

The idea of God, as giving unity to the universe, or of self-subsisting *Substance*—a *natura naturans*—which is tacitly endowed with the attributes of God, is a necessity of thought imposed upon man by the limitations of his faculties—by the impossibility under which he, as an individual, lies of thinking and interpreting the universe save in terms of himself. Unavoidably and unwarrantably he limits the

unknown power which he calls God, when he honestly tries to make the conception of it, though he starts in instant affright from the limitation which he suspects he is making, when he catches a glimpse of it; and by inventing words that negate definite meanings, in order to conceal or deny it, he pleases himself to think that he has got rid of it in thought. To attempt to comprehend or even to name the inscrutable is the grossest absurdity: the incomprehensible must remain ineffable. Nevertheless he may be permitted to believe that energy from the region outside knowledge works in and by him, giving impulses and aspirations which he cannot otherwise account for; he may feel the energy without being able to fathom its source, as a man would feel the moon in the tides, though he were blind and never saw it; and he may declare his impotence of thought by such expressions as from everlasting to everlasting, infinite, absolute, and the like. But to bring God at all within the compass of human predication, and above all to give to Him a magnified human personality, a character and a name, asserting thereupon that man is made in His image, is sheer blasphemy and nonsense. The Jehovah of the Jew was as purely tribal a God as any god of the Canaanites over whom He exulted; as plain a creation of the Jewish mind and character as the idols of the Chinese are national creations, which they are said to make with big bellies because the ruling functionaries are usually corpulent in that respect. Nor in any other case can assertions made concerning God fail to do more than reflect the stages of human culture at which they are made; even to declare His ways to be what we call moral is just as absurd as to declare Him to be jealous, angry, revengeful, or to have back parts.¹ The most exalted idea that can be formed is still anthropomorphic, being nothing else than the most abstract ideal of humanity con-

¹ The man who does to others as he would have others do unto him, is moral; but it is a morality from a strictly human standpoint. What might the animal which he pursues, enslaves, tortures, kills, eat for his gratification, think of that morality from its standpoint? Or, how may such morality look from the standpoint of the universe as a whole? Let us join hands and help one another, for we are the glory of the universe, if not its end and aim and nothing else has any value in it in comparison with us!

ceivable with as many relations as possible got rid of—in fact with certain attached words that are actually negations of conceptions, but which are tacitly treated as meaning realities.

These we may set down as the two supreme absurdities: first, the assertion that there is nothing beyond human experience that is not in accordance with human experience, nothing beyond the actual or possible reach of human faculties; and, secondly, the pretence to any sort of knowledge of that beyond or the enunciation of any proposition whatever, positive or negative, concerning it. Every one has justly the right to rebel alike against the dogmatism of sense-built science when it goes beyond its range to deny supra-sensual possibilities, and against the dogmatism of the theologian who imposes his fantastic notions of the supra-sensual as matters of faith.

It is certain that the conception of God at the present day, as a God of love to the whole human race, is very different from the Jewish conception of God, this having undergone a remarkable evolution in Christian thought. Faith has created the pattern that love desires; and the jealous and special God of the Jews, nominally worshipped still, is really banished to the limbo where other dead gods, like Jupiter, Saturn, Neptune, and the rest of them, have gone.

The tendency moreover is day by day more and more to abandon predications concerning God and to make the conception more and more abstract, vague, remote, undefined, nebulous. How in any way define, that is mark out from all else, when there is no else? An eminent Unitarian preacher and writer, after congratulating himself on the dissolution or fading away of what he calls 'scenic dreams' of the Christ-drama, says that 'the more the Divine life awakes in us the less do we ask, and the less can we bear, that its infinite objects and elements shall be rendered finite by being brought into the plane of Perception.'¹ He would have a vague and vast feeling of transcendental possession, not to be apprehended in thought nor uttered in

¹ Rev. Dr. Martineau.

words, such as he might get, I take it, without any divine contemplation at all, from a dose of opium; or such as a hysterical girl who falls into an ecstasy has engendered by the practice of self-abandonment to unwisely indulged feeling. For he omits to inquire into the source, which may be the lowest bodily, and into the value, which may be personal and illusive, of this vaguely rapturous feeling by which he aspires to be possessed and thrilled; and he would do well perhaps, first, to assure himself that the afflatus is from above and not from below, and then to prove that in any case it is a wholesome and efficacious substitute for the concrete Divinity which he has denuded Christ of. It may be doubted whether by taking the God out of Christ, and then getting up an ecstasy of vapid sentiment about a Divinity from which man has been eliminated, there is scope left for sound and manly feeling; for with emotion as with thought the true test of practical value is perhaps to be sought in the concrete. Otherwise one may arrive at a mood of mind in which shall be found much comfort and no shock to reason in a prayer of this kind:—O Thou, who wast before every before, and wilt be after every after; most hidden, yet most present; unchangeable, yet all-changing; never new, never old; ever working, ever at rest; still gathering, yet nothing lacking; who lovest without passion; art jealous without anxiety; repentest, yet grieveest not; art angry, yet serene; ¹—and so forth through an assortment of blank contradictories that are revealed to the divine intuition of ecstatic feeling as blended in mystical union in a higher plane of being than thought can reach or aspire to.

Some there are who will be disposed to contend for something of a human character in the divine consciousness on the ground that in its contents are the infinite multitudes of separate human consciousnesses: the grand harmonic whole must be conscious because it embraces the multitudinous undulations that are conscious. In respect of that argument it must be borne in mind that the sum of any number of limitations, such as all individual consciousnesses being relative are, never could make the unlimited. Let them all be

¹ Most of these expressions are taken from St. Augustine's *Confessions*.

included, the resultant is still limited, and that which is still excluded is the infinite; of which to predicate the same kind of consciousness is nonsense. We are thus brought to the dilemma either to make divine consciousness co-extensive only with a small part of the universe, namely, that which is humanly conscious, or to extend human consciousness to the whole, when it could obviously be no longer human. In the case of such extension, indeed, consciousness would disappear; becoming the whole, it would lose that limitation by virtue of which it is; for it arises from the opposition between subject and object, the *ego* and the *non-ego*, and the resulting changes of state, and is always most acute in those intensely subjective states of pain, mental or bodily, when the individual is most limited, the full expression of his nature most impeded or repressed, and he therefore least in harmony with the whole. The act of transcending human limitations, were it possible, and of becoming universal and unchangeable would be its self-annihilation. A supreme, absolute, and infinite consciousness could not be, or could be only as an eternal unconscious intuition, were that conceivable humanly. The generalisation of a divine consciousness is not more valid than would be the generalisation of a divine big toe; for, indeed, to suppose a universal consciousness answering in any way to the sum of human consciousnesses is as much a piece of anthropomorphism, though not quite so gross and palpable an instance, as to represent God in the exact image of the creature man.

It is another pretty piece of anthropomorphism—hardly less so than to make God moral—to infer from our observation of nature that He is working out some great purpose in the remote future through multitudinous adaptations, direct and circuitous, simple and complicated, of means to ends; for how can that which is purpose or end, according to the fashion of human intelligence, be purpose or end to an unconditioned and infinite intelligence? Design in nature is no more than design in human nature; and the legitimate conclusion of man from his discovery of it is not as to the attested existence of a divine designer, but as to the clever deception by which he, the real designer, has projected the

shadow of his self-experience and transformed it into an outside divine worker, of his own complexion. But see his inconsistency the while! In the same breath with which he pronounces the divine end to be past finding out, incomprehensible, inconceivable by human intelligence, he declares and insists on the existence of final purpose in nature, both in the particular and in the general. He postulates an end, which, being a term that derives its sole meaning from and is solely applicable to human conceptions, is simply meaningless, pure nonsense, when applied, or misapplied, to what transcends human conceptions.

But it is his way, in magnitudes that outstretch his conceptions, habitually to use meaningless or self-contradictory terms. What more common in his mouth, for example, than such expressions as infinite number, infinite multitude, and the like, when number is number by virtue only of being definite, and infinite number therefore is number which is not number! His manner of reasoning of the final causes of nature from his standpoint is very much as if an oyster were to construct a theory of human doings in London or Paris from the basis of its limited relations with the interior of its shell; or as if the little worm that feeds on the leaves of old books were to construct a theory of their purpose from its experience of their uses for its food. Now it may justly be doubted whether the lucubrations of an oyster, however exceptionally well inspired with the divine afflatus of prophecy, or the intuitions of a book-worm, though never so much experienced among books, would rise to the least apprehension of human doings or of human uses of books. In which connection it is well also to bear in mind that the vast but still measurable distance by which human perception outreaches the oyster's perception is very little, compared with the immeasurable distance by which human perception is transcended by that which lies altogether outside its range.

In the end it is somewhat saddening to think that theologians will insist on identifying religion with theories of cosmogony. Their notion of God is not religion, not even an essential part of it, but a metaphysical theory of the uni-

verse to which, whether true or not, religion has nothing to say. They may go on for ever questioning the eternal silence, and eternally will it be silent to their questionings. Therefore they do religion an ill service who identify it with the answers which they imagine they extort to questions to which no answer can be given, or any answer that is given must by its limitations be false. The pity of it is that with so ample a scope for their best energies of devotion and self-sacrifice in a world so much needing to be made better, they should waste them in sterile endeavours to think the unthinkable. Having settled clearly by an exhaustive criticism of their own faculties that they cannot know anything which is not relative, why immediately go back to the barren work of constructing theological, moral, or metaphysical theories of the absolute? Yes, and from the very basis of that relativity which they have just proved and conceded to be no basis at all. Ideas realise perfection in different degrees, some being more, others less perfect—that is evident, they say; therefore it is legitimate to infer a complete or absolute perfection from which they are derived and which they in part and darkly resemble. But how from addition of imperfections ever get a perfection? Having created a perfection in relation to their ideas—that is, having set up an abstract perfection of their own, which is still entirely relative—they thereupon see in the ideas proofs of a derivation from it, and draw from them an argument of its absolute existence. And so for ever round and round the self-beguiling circle.

Every theory of cosmogony whatever is at bottom an outcome of nature expressing itself through human nature; it is a product of that part of nature which is being humanised in man's development, not a supersession of it by any influx from without; it does not therefore ever, nor can it ever, dispense with that positive basis of nature, or possess a higher authority than its source, however much above the things of this world it may aspire or assume to be. How can that be knowledge which contradicts the fundamental data of reasoning and thinking by which alone knowledge is possible? In the end religion will preserve its vitality and strengthen its power only by breaking through old

formulas, throwing off the encumbering fragments of dead creeds, and taking a new and purely human development: by effecting and reflecting, as Christianity at its outset did, a genuine human solidarity. The timid hypocrisies which hope to preserve it at the cost of the true, from fear of the consequences to morality if the truth be made known, will have to be abandoned; and though the immediate result of their rejection may be sadly afflicting and seem to justify despair, yet we may take comfort in the certitude that the ultimate effects will be good. The true *good* cannot consist with what is not *true*; for there is a solidarity among the virtues, however they present themselves, whether as that which is true, or good, or beautiful.

NOTES TO PART II.

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KANT's doctrine is that there is a determination of the will by pure reason ; that so reason gets practical reality ; and that in this absolute obedience the will has absolute assurance of its freedom. The moral law is a law spontaneously imposed on the will by pure reason : it stands high above all the motives, sensuous and their like, which determine the empirical will ; it pays no respect to them, but with an inward, irresistible necessity, orders us, in independence of them, to follow it absolutely and unconditionally.—'tis a *categorical imperative*, universal, and binding on every rational will. A happy thing, certainly, that a will determined to unconditional obedience by so absolute an authority retains nevertheless the absolute assurance of its freedom. But then comes the not unimportant question—What is it that practical reason categorically commands ? How are we to know what the moral law dictates and forbids ? The easiest thing in the world : let only those maxims of conduct derived from experience be adopted as motives which are susceptible of being made of universal validity—which are fit to be regarded as universal laws of reason to govern the actions of all mankind. I do right when I do what all persons would think right in similar circumstances. Very good, without doubt, although very like the common-place maxim of every ethical system ; but my difficulty has been to know in a particular case what all intelligent beings would think right. How am I to get at the universal standard or precept and apply it to my particular occasion, so as to know absolutely what I ought then to do ?

Kant helps me by means of two remarkable illustrations. Suicide is one. Is suicide, under the strongest temptation conceivable, ever right ? I must ask myself then, ' Is the principle of the admission that suicide is ever right fit to become a universal law ? ' No, says Kant, it is not fit, since the universal practice of suicide would reduce the world to chaos. Very true ; but it is sadly disappointing to perceive that the sublime and supreme reason has, in order to become practical reality, found it necessary to come down from its supra-sensuous heights and to be no better than gross Utilitarianism. All

that it can tell me, panting for its supreme utterance, is that suicide is inexpedient as a universal principle of conduct—in fact, it makes use of the common motives of an experience which is nowise supra-sensuous, and instead of helping me to an absolute precept or standard to measure them by, actually comes to them for its authority.

The second instance is no more helpful. May a person in the greatest need of a loan, which he knows he will not get unless he makes a solemn promise to repay what he is perfectly certain he never will be able to repay, make the promise? No, says Kant, for if it were a universal law, all faith in promises would be destroyed and nobody would lend money. In other words, in the long run it would be very bad for society that faith in promises should be destroyed. An excellent truth, which nobody will deny, but it evidently smacks much of the earth, earthy; indeed, it would seem that those who discover the basis of morality in the social sanction may claim Kant, when he is not in the clouds, as an out-and-out supporter.

Theories of freewill seem to come very much to this—that the will that is swayed by low motives is not free, that the will that is swayed by higher motives is more free, and that the will that is swayed by the highest motives is most free. Consequently when any one is blamed for having done ill, he is not blamed for having acted without motives, but for not having been actuated by the highest motives. Create an artificial world of names apart from the real world of facts—a world which shall simply be made up of negations of all qualities which we have actual experience of—and let the highest motive in it be known as the Will of God or abstract Supreme Reason, you get your service which you please to call perfect freedom.

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We may notice how religion stands in relation to theology, according to one of the greatest modern exponents of those relations, and how it suffers by the enforced union. By religion, says Cardinal Newman, 'I mean the knowledge of God, of His Will, and of our duties to Him.'¹ At the outset then we are to understand that there can be no religion without a knowledge of God, of His Will, and of our duties to Him. A philosopher of the future from the ends of the earth, his mind not impregnated by inheritance, nor imbued by education, with the prepossessions of any theological system, will

¹ *Grammar of Assent*, pp. 384, 386, &c.

naturally ask, What God? in face of the different gods that have been worshipped at sundry times and in divers places, and demand some credentials, as he has the right to do. He is a 'hidden God,' for 'what strikes the mind so forcibly and so painfully is His absence from His own world.' Then there is this further characteristic—'that the aspect under which Almighty God is presented to us by nature is (to use a figure) of one who is angry with us and threatens evil.' That is because 'our shortcomings are more frequent and important than our fulfilment of the duties enjoined upon us,' and because the principle of His divine government ordains that the offender should suffer for his offence. In respect of this humanly vindictive character He resembles the gods which the savage has conceived for himself by the unaided light of nature; and when we go to the authorised revelation of Him for further light, we meet with the exposition of like human characters, for we learn there that he is a jealous God, revengeful, easily provoked to anger, loving what pleases and hating what displeases Him; who admires His own work, shows no mercy to His enemies, visits the sins of the fathers upon the children unto the third and fourth generations, and decrees eternal torment for those who observe not His commandments to keep them. Evidently this sentence of eternal damnation is the consummate evolution of the anger of a God made in the image of man. It is in a knowledge of Him, however, and His Will that the earnest inquirer is to seek and to find his duties as a man: the highest duties of man to God and man impossible of attainment save in that way. And how is he to attain such knowledge? By examining conscience. 'Our great internal teacher of religion is conscience. . . . Conscience too teaches us not only that God is, but what He is; it provides for the mind a real image of Him as a medium of worship; it gives a rule of right and wrong as being His rule, and a code of moral duties.' Here then we learn what certainly is not a little surprising, that conscience teaches a *knowledge* of God, imparts a real *image* of Him, and gives us a *code* of moral duties. Kant recognised the moral imperative in conscience and fell down in adoration of it, but he never found a complete moral code there. Let a man only learn the art of interrogating conscience cleverly, and he has an infallible revelation of what God is and wills, of what He is like, and of what He ordains in every particular case. But will every one be able really to find, if he tries, these stupendous contents in his conscience? Will not the absolute which he finds attest the relative of his conscience? Will the Delaware Indian or Andaman Islander ever extract these sublime positive revelations from within himself? In truth it is to give an extra-

ordinary extension to the meaning of the word 'conscience' to find all these things in it ; for surely it is not the fact that the function of conscience is knowledge ; it is not by it that we know, but it is by it that we feel, the right and the obligation to do it and feel the wrong and the obligation to shun it. But there is no fixed measure in conscience by which is determined universally and infallibly what is the particular right or wrong ; for always, in all times and places, the particular right or wrong has answered to the moral development of the tribe, the community, the nation. Conscience might more justly be described as the *consocial* sense, which is developed in men from *con-science* and confederation - *i.e.* from knowing and working together in social union, from unity in aim and means : set men to work together for a common end in a social union and they will end by feeling together. So it has come to pass that the consciences have notoriously been as various as the communities of men, and that Cardinal Newman finds at the present day in his conscience the cosmogony and the moral code of Christian theology, as interpreted and guaranteed by the infallible authority of the Roman Catholic Church. Had he lived among the savages who thought it a pious duty to eat their aged parents, he could not have failed to find in conscience the authority to eat his father, as he now in profoundest reverence eats the body of his God at the most holy ceremony of his faith.

PART III.

THE PATHOLOGY OF WILL.

SECTION I.

CONCERNING DEGENERATION.

THE attention of the philosophic and scientific world has been so much fixed on the theory of evolution, ever since Darwin set forth the main manner of the process by means of the survival of the fittest through natural selection, that there has been a proneness to overlook the fact that all we see and feel around us is not progress—in the sense we understand progress. Survival of the fittest does not mean always survival of the best in the sense of the highest organism; it means only the survival of that which is best suited to the circumstances, good or bad, in which it is placed—the survival of a savage in a savage social medium, of a rogue among rogues, of a parasite where a parasite alone can live. A decline from a higher to a lower level of being, a process, that is to say, of degeneration, is an integrant and active part of the economy of nature. Besides the organisms that have become step by step more and more complex and perfect, there are organisms that have plainly lost in the successions of the ages organs which, bringing them, when they had them, into wider and freer and closer relations with the external world, ministered to a higher and fuller life than they enjoy now: witness in proof, for example, the wingless beetles of Madeira, the rudimentary wings of the birds of oceanic isles, the imperfect and nearly useless wings of domestic fowls like the Cochin China fowl, the small eyes of

moles, some parasites that live on other organisms; and I might justly go on to add such instances as the lapse of heroic feeling in commercial states, the loss of self-respect in the courtier, the demoralisation of popular preachers and of popular scientific lecturers, and many others of a like kind which illustrate the subdual of the person's nature to the moral atmosphere that he works in. It is the same with a creed or system of belief; in which, when it undergoes degeneration, the higher parts waste and the lower parts grow. For example, when a savage people are converted to Christianity they assimilate by natural affinity the lowest elements, and reject, being unable to apprehend them, the highest; so the higher element disappears, or is degraded by the association of low ideas into something quite different; the unique figure of Jesus Christ becoming no more than that of the biggest fetish, the fetish of the white man.

Disuse of function leads everywhere to decay of organ; by decay of organ going on through generations that which was complete and capable becomes rudimentary and incapable; and so in a backward course the organ or organism reaches a state of degradation of which it is hard to say sometimes whether it is the relic of a more perfect structure which has been, or the inchoate rudiment of a new structure which is to be. Then it presents a problem about which men may doubt and dispute, just as in reference to their own true position in nature they have disputed whether they are what they are by a degeneration from a higher to a lower state, or whether they are steps in a process of evolution from a lower to a higher state, ascendent or descendent, beings a little lower than the angels or a little higher than the brutes. However that be—and the possible angelic relation is not a matter of great moment, since the angels that they were only a little lower than could not in any case have been of a very exalted kind—it admits of no doubt that a law of degeneration is manifest in human events; that each individual, each family, each nation may take either an upward course of evolution or a downward course of degeneracy. Noteworthy too in this relation is the fact that when the organism—individual, social, or national—has reached a certain state of

complex evolution it inevitably breeds changes in itself which disintegrate and in the end destroy it. It cannot maintain its equilibrium for ever in face of its environment, and ceasing to aggregate to itself it begins to disintegrate, ceasing to progress begins to regress, ceasing to develop begins to decline: changing always, when it changes not for the better it changes for the worse. Perfect repose is death. Here again a creed or system of belief behaves in the same way, giving rise in the process of its decomposition to retrograde products that cannot serve for evolution, since they are events of a dissolution which, as disintegrants, they help to expedite. It is a process which may not perhaps be easily traced in the case of a particular belief, but it is evident enough after one of those great historical events, such as the break-up of a system of religion or of a political constitution, which befall only at intervals of centuries.

In nature, as we see it, we seem to see a conflict of warring opposites: gravitation opposed, or rather indeed complemented, by repulsion; chemical affinities by chemical repulsions; magnetic attraction by electric repulsion; evolution by dissolution; conservatism by revolution, quiet or catastrophic; love by hate; self-love by love of kind; heaven by hell. Certain it is that hate and destruction are just as necessary agents as love and production in nature, which could no more be, or be conceived to be, without the one than without the other; and to call the one good more than the other, however necessary from the standpoint of human egoism, is just as if one were to call gravitation good and repulsion bad, as gravitation, had it self-consciousness, would no doubt do. In order to have a theory of cosmogony that shall cover all the facts, it has always been necessary to supplement a good principle by a bad principle, a God of love and creation by a God of hate and destruction. And it must always be so. We may, agreeably to the logic of our wishes, comfort ourselves in our pilgrimage by entertaining the hope and belief of the working out of good through evil and of the permanence of good after the disappearance of evil, just as, if it were useful and pleasing to us to cherish the illusion, we might persuade ourselves that repulsion will one day be

annihilated and gravitation endure, or that evolution will continue and dissolution cease to be; but if we look at the matter in the cold spirit of strictly rational inquiry we shall always find abundant reason to believe that the sum of the respective energies of good and evil remains a constant quantity, the respective distribution only varying, and that we might as well try to increase the height of the mountain without increasing the depth of the valley, as to increase the good in the world by purging it of its so-called evil.

And now to inquire briefly what is meant by degeneration. It means literally an *unkinding*, the undoing of a *kind*, and in this sense was first used to express the change of kind without regard to whether the change was to perfect or to degrade; but it is now used exclusively to denote a change from a higher to a lower kind, that is to say, from a more complex to a less complex organisation: it is a process of *dissolution*, the opposite of that process of *involution* which is pre-essential to evolution. In proportion therefore to the complexity of evolution is the possible diversity of degeneration: the more complex the organism the greater the number and variety of its diseases; the more varied and beautiful animal forms are, the greater are the varieties of the examples of ugliness and degradation which they furnish; and great cities which are the centres of the best intellectual light become naturally the centres of the greatest vices. Bacon had noticed the fact of degeneration in plants and laid stress upon it—‘This rule,’ he says, ‘is certain, that plants for want of culture degenerate to be baser in the same kind, and sometimes so far as to change into another kind;’ and he enumerates certain changes of condition which bring the changes about. Not that a process of degeneration ever brings a higher species of organism to the structural pattern of a lower species; in order to do that, it would have to go backwards through as long a reach of time, and as many stages of regressive experience in relation to simultaneous regressive changes of surroundings, as the lower species had traversed forwards in its upward transpeciation. Granted that man comes of an ancestral stock common to him and the monkey, still no

excess of degeneration would ever reduce him to the monkey-pattern; it may certainly sink him very low, as the repulsive example of a speechless, helpless and slaving idiot shows, but the traits of degeneracy bear a distinctly human stamp, they have that superscription and image. The *unkindling* which we call degeneration is not then the reduction of a higher kind to a lower normal kind, but the transformation of it into a new or abnormal kind; a kind which, incapable of rising in the scale of development, tends naturally to sink lower and lower.

As in the decomposition of a complex organic compound new products are formed that had no part in its composition, and that are never met with except as the products of such decomposition; or as new morbid elements are formed in the disintegrating processes of disease, the ravages of which they thereupon accelerate; so new products of an asocial or antisocial kind are formed in the retrograde metamorphosis of the human kind; wherefore it is that we meet with not only degenerate varieties of the kind, such as idiots and lunatics are, but also with a great many forms and varieties of degradation in persons who are neither idiots nor lunatics. Is it not, for example, a remarkable thing, when we think of it, that man, highest of the animals—so much so that the base kinship repugns him—should have invented and practised everywhere a variety of sexual vices which no animals, though having as strong sexual passions as he has, ever perpetrate? The ingenuity of vice which he has achieved in that respect has reached the limit of its variety only in the limits of the physical capacities of his bodily mechanism; so that, these having been now exhausted, happily no one, how great soever his practical genius, will be able to invent a new vice of that sort. He has used his reason to be more brutal than the brutes; and when he has devised and done some deed so ingeniously bad that no brute ever did the like, he characterises it specially as brutal and inhuman. Brutal, that is to say, when no brute was ever capable of it, inhuman when it is entirely and exclusively human!

It is not the brute, but the degradation of the brute in him, that he ought to accuse; for instead of using his higher nature to exalt his lower nature he has used its resources to degrade the latter to the utmost. The variety of his ingenious vices bespeaks the foul misuse of his superior reason to gratify the fundamental passions and selfish impulses of his nature; he exhausts all the devices of ingenuity in order to enhance and multiply desires and to vary the modes of their gratification; and in doing that, blind the while to the necessity of idealising, he is in the state of all states most dangerous—that of man knowing and realising the truth that he is animal, but not knowing and realising the truth that he is not all animal. The potentiality of a more complex development is always the potentiality of a more varied degeneration: the height of Heaven the measure of the depth of Hell. He does well then to upbraid, in fitting terms of disgust and contempt, the prostitution of reason to the guilty degradation of his animal nature—though libelling the animal in the terms he uses—to the end that the thought of what he has done may turn him from the wrong way of degeneration and urge him to pursue the right way of evolution. Retrograde products of any sort, however, are no less normal in their way than the products of evolution, just as earthquakes are as natural as summer breezes, pestilences as natural as prayers. When men describe them as abnormal, unnatural and the like, it is because they regard them from one aspect of human life—from the standpoint of a progressive human movement. View them as events of the Whole, as an all-encompassing, all-seeing Being might be supposed to do, and in that universal view from the standpoint of a regressive human movement—a tide which, flowing here and now, ebbs there and then—and they would seem most fit and proper.

SECTION II.

CONGENITAL DEFICIENCE OR ABSENCE OF MORAL FEELING
AND WILL.

IN what function, and in what changes of it, is it that the beginnings of human degeneracy show themselves? It is obvious that in searching for the answer to this question we must occupy ourselves with the most highly developed states of man, since the earliest and most subtle signs of degeneration can be found only in the most fully developed specimens. Bear in mind that our business now is with the individual, not with the complex union of individuals which is known as a nation, albeit it may be of interest to note in passing that national degeneration begins in what is strictly a *demoralisation*—namely, in a loss of patriotism; by which I mean not the noisy and aggressive so-called patriotism that rushes into quarrels and combats in order to aggrandise the nation, but the calm and pure patriotism which, inspiring self-abnegation and the sacrifice of individual interests to the good of the community, consolidates a nation. In like manner, in the individual it is the function of will in the highest moral sphere—the region of moral feeling which, representing the highest reach of evolution, is the consummate inflorescence of human culture—that will be the first to exhibit signs of impairment: the latest and highest product of social evolution, that which, latest organised, is least stable, will be the first to undergo dissolution.

In order to ascertain whether the facts of observation agree with this deduction it will be right to examine them frankly, without bias, and to see what independent induction they warrant. Should the induction and the deduction agree, all the more shall we feel the conclusion sound. Look then in the first instance at the lowest specimens of beings in a civilised people, those who, marking the last term of human degeneracy, have never had the responsibility even of a capacity to degenerate, having been born essen-

tially deficient—the congenital idiots; beings who, disinherited of their human birthright by reason of native defect of bodily structure generally and of cerebral structure and function in particular, are incapable of a normal mental development, and some of them incapable of any mental development whatever. In them we have human beings so radically deteriorated, and that without any fault of their own, souls so enthralled somehow in the meshes of unsuitable matter, that they are without the potentiality of becoming truly human. They are a *reductio ad absurdum* of humanity by the logic of facts: a pretty plain proof that the way of evolution goes in the opposite direction to the way by which they have come to be. It is not enough to dismiss them from consideration as monstrosities, morbid products, anomalies, abnormal creatures, accidents, and the like, for that sort of labelling of them is not in the least instructive, nor does it advance matters a step; they have been bred of human stock and are what they are by virtue of natural processes, the laws of which may be investigated and their issues modified. We cannot blame the idiot for being what he is: whom then can we blame? If we may not accuse the bungling of his father who begot him, or the folly of his mother who conceived and bore him, assuredly we have the right to hold mankind responsible for him.

Putting aside what may be called accidental causes of idiocy, that is to say, causes arising out of some accident or bad state of health in the parents, one pretty sure and regular way of producing the congenital defect is by the increase of degeneracy through generations. Were a curious person minded to breed a race of idiots he would probably obtain a large measure of success by setting a number of insane, epileptic, and weak-minded persons to propagate; so he would bring degeneracy to its pathological term, human disintegration to its simplest retrograde human product. If he tried to reach a still lower depth in this deep of degeneracy by setting idiots to breed, or if he aspired to keep up a race of idiots in that way, he would fail; he would find it impossible to carry the retrograde metamorphosis or process of *dehumanisation* any further;

impotence and sterility in his breed of idiots would bring his experiments to an abrupt end. Nature has put a limit to dehumanisation in the qualities which she exacts in order that the combination of two individuals to produce a third may take place at all. There are then two terms between which all sorts and varieties of men may be ranged—the lowest term of degeneration and the highest term of evolution, and towards the one or the other of them each individual in the fluent line of being is tending: a double flux of movement, as it were, ascendent and descendent, the ways or modes of degeneration in the descendent line being almost as many and divers as the varieties of evolution in the ascendent line. Some persons are high on the upward, others low on the downward, path; many are just entering upon the one or the other; but there is no one who is not himself going in the one or the other direction and making the way which he takes easier for others to follow in.

It goes without saying that among other qualities in which idiots are wanting they are wanting in moral feeling and will; indeed, the manifold varieties of idiocy and imbecility, representing all degrees and sorts of mental deficiency from the least to the greatest, yield examples of all degrees of moral deprivation and of volitional impotence. Here it shall suffice to call attention to a case well suited to bring home to the mind the necessity of a scientific view of such defects and of a scientific inquiry into their nature; and it is of set purpose that I select an instance which presents no marked nor even manifest defect of brain and of ordinary intelligence, but in which the moral derangement is extreme; because it will serve to show how the fine layer of moral feeling and the supreme reason embedded in it, so to speak, may be deranged or clean stripped off from the mind at the beginning of its degeneracy, without the ordinary intelligence being seriously touched.

The case is that of a young child, five or six years of age only, which is causing its anxious parents no little apprehension and distress by the singularly precocious display of vicious proclivities of all sorts, quite out of keeping

with its tender years—mischievous and destructive impulses, cruel and perverse acts, amazing skill in thieving and lying, even perhaps a startling sexual precocity—and by the utter failure of either precept or example or correction to imbue it with right feeling and with the desire to do right. So strong is the natural bent to, and so intense the immediate pleasure in, these wrong-doings that punishment is useless to check them. It may not, as I have said, be notably deficient in intelligence; on the contrary, it is sometimes capable of learning quickly when it pleases, particularly perhaps in some special line of knowledge for which it shows a singular talent, and it displays acute cunning in finding and devising the occasions to gratify its evil inclinations. It is a moral idiot without being an idiot in self-seeking and self-serving intelligence: the defect of intelligence is that it is capable only of half its function, being acute to apprehend self, impotent to apprehend the social not-self. Not that the child can be said to be altogether insensible to the difference between right and wrong, since it invariably shuns the right and chooses the wrong, and shows an amazing acuteness in the means it uses to escape detection and the punishment that might follow detection. But it certainly does not feel the right as right, as something stirring an impulse of attraction, and the wrong as wrong, as something stirring an impulse of repulsion; and accordingly punishment awakens no sensibility to the social or moral meaning of conduct, no internal social response, provokes only an acuter display of low cunning in the endeavour to evade it. The creature is truly an *asocial* being. So incorrigibly vicious as it is at so tender an age, so perseveringly set on evil-doing, so utterly incapable of penitence, everybody who has to do with it feels in the end that it is not really responsible for its conduct, perceives sadly that the severest punishment cannot do it the least good, and is constrained to acknowledge that it labours under a native incapacity of moral development: it is congenitally conscienceless.

The main scientific interest of a case of the kind lies in the inquiry how it is that a human being has been born

into the world who is unimbued with innate moral, and is imbued with innate immoral, tendencies; who will, nay must, go wrong in virtue of his bad organisation, and who manifests such precocious capabilities of wickedness. Putting aside the theory of Satanic inspiration as not being an adequate explanation in an age that at least is infected with the spirit, where it is not imbued with the habit, of scientific thought, and having the certitude that the effect defective comes by cause, we look to the line of the child's descent for an explanation, to the nature of the antecedents of which it is the consequent, and seek in ancestral infirmities, errors, misfortunes, and wrong-doings for the cause of the defective organisation; defective, that is to say, for social organisation, but, everything being by a divine dispensation good of its kind, very effective for social disorganisation. As a general fact it will be found that such children are descended from a family in which insanity or epilepsy or some form or other of mental degeneracy exists, and exists not as an accident but as an essential outcome of character; that they are antisocial upshots of a process of degeneration in the line of their descent, manufactured morbid varieties of the human kind. The lapse or absence of the highest inhibitory sensibilities and powers in the lives of the parents has issued so in the nature of the offspring—*those* antisocial in life, *these* are asocial congenitally: it is an example of the law of degeneration avenging the infraction of the law of evolution: a product and a nemesis at the same moment.

Taking free leave to put complicated and obscure facts into a somewhat ideally simple scheme, one might represent the stages of descent in this fashion: 1. Absence of exercise, and through disuse decay, of the highest social sensibilities and powers, moral and volitional, in one generation; therewith lifelong, unchecked exercise of the secondary or social developments of the egoistic passions in the conduct of life; a consequent moral degeneration which by its nature goes deeper into character than intellectual degeneration. 2. In a succeeding generation some form or other of positive mental derangement; or such a development of vice in char-

acter as falls a little short only of madness or of crime. 3. In the third generation moral imbecility or idiocy, with or without corresponding intellectual infirmity. This sort of ideal scheme will serve to mark the main line of the course of degeneration, which may, however, be modified greatly in particular cases; for as, on the one hand, the second stage may be omitted altogether, and by an unpropitious reinforcement of the bad tendencies, through the meeting of two degenerate lines, the third follow directly upon the first; so on the other hand, owing to the combinations, neutralisations and other modifications to which ample scope and occasion are given by the introduction of the elements of a fresh stock in each generation, and to the inherent tendency which there is in every organism to revert to a sound type, the outcome of the degeneracy may be delayed, modified, or hindered altogether. This broad lesson, however, remains for us—namely, that the acquired infirmity of one generation will, unless countervailing influences of breed, of training, or of surroundings are brought to bear meanwhile, become the natural deficiency of a succeeding generation: it is the old tale, as old as history, that when the fathers have eaten sour grapes the children's teeth are set on edge. Most certain it is that men are not bred well or ill by accident, little as they reckon of it in practice, any more than are the animals the select breeding of which they make such a careful study; that there are laws of hereditary action working definitely in direct transmission of qualities, or indirectly through combinations and repulsions, neutralisations and modifications of qualities; and that it is by virtue of these laws determining the moral and physical constitution of every individual that a good result ensues in one case, a bad result in another.

Of many striking examples of deprivation or derangement of moral feeling and will in young persons that might be given, let one suffice here: that of a rather sharp-looking boy, eight years of age when I saw him, who, however, had not been able to learn anything systematically; not even a game of play, since to play with a hoop exacted more attention and perseverance than he had been able to give. In fact he could not hold his attention to anything, though

very quick in instant perception. He was, however, most ingenious in mischief which he never missed an opportunity of doing, and delighted to talk of playing some viciously mischievous trick, in the imaginative description of which he exulted in a braggart and grotesquely dramatic fashion; chattering incessantly and running from subject to subject, without other connection than the unity of character given to them by the leading bent of his destructive disposition. Though he could tell stories of the events and even minute experiences of years back with surprising exactness of details, he had no perception of truth, but evinced an inexhaustible and uncontrollable craving for what might have been called lying, had his nature been in the least sensible to truth, but what were really the constructions of a vivid and busy imagination revelling in its vicious activity. His continual talk was of killing persons or animals that had in any way offended him or ruffled his prodigious conceit; and he was ludicrously ferocious and boastful in his dramatic conceptions and circumstantial descriptions of the grand way in which he would do it. His father had died of what was called softening of the brain soon after he was forty years old, having been insane for some time before his death; his paternal grandmother had died demented in an asylum at a great age, having lived there for upwards of twenty years; on his mother's side also there was insanity, and she herself, though not actually insane, was extremely excitable and a singularly insincere and shifty-minded person. What wonder then that a congenitally defective moral organisation was the term of that line of descent! The creature was degenerate before it was generate.

It will not be amiss to take particular notice of the three prominent phenomena of his mental pathology: first, a complete absence of any germ of moral sense, his asocial nature in that respect, whence no response to the higher social stimuli and no capacity to assimilate them—that is, to take and make them into its own nature; secondly, his congenital inability to apply his attention steadily so as to get a proper hold or apprehension of external realities and their relations—a fatal defect, for the monkey is not teachable that cannot

attend, and the monkey most teachable that attends the best; thirdly, an extraordinarily active display of the constructive energy of brain that we call imagination, uninformed by lessons of experience which it could not properly assimilate, and ill inspired by the vicious mood of his mental nature, whose energies it absorbed into its predominant and almost exclusive activity. Clearly the vital energy of the stock, even in the higher expressions of it in the nervous system, were not exhausted, had other defects not precluded its proper development. Though an extreme instance, it may serve to teach what little value is to be set on imagination when it is uninformed by observation and undisciplined by reason.

A second question that is of scientific interest in cases of the kind is how it happens that creatures so young are capable of displaying so extraordinary a sexual precocity as they do sometimes. Those who observe it with dismay are apt to be painfully shocked by the spectacle and to cry out against it as if it were not human. But it is human enough. If the true problem be, as it certainly is, not the origin of evil, but the origin of good in mankind, the products of the degeneration of the kind may be expected naturally to exhibit disintegrate displays of its fundamental egoistic passions. In what modes else could the decomposition or disintegration of human nature show itself? Were the infant in arms possessed of power answering in measure to the outbursts of its transitory passions, had it a giant's strength in its feeble limbs to execute its froward will when it goes into contortions of rage because it does not like to be washed, it would be as dangerous and destructive as any madman: it is the helplessness of its body which, rendering it impotent, makes it innocent. It is well to idealise, but it is not necessary to suffer the brightness of the ideal wholly to obscure the real, and it is not well therefore to take quite seriously the vast deal of nonsense that is written concerning the purity and innocence of childhood; the purity is a negative purity at best, a blank virtue, while the activities that exist are for the most part not innocent. Are not children, as La Bruyère described them, naturally boastful, scornful, passionate,

envious, curious, selfish, idle, prone to steal, apt at dissimulation, and ready liars; easily moved to immoderate joy or thrown into excessive grief by trifles; not willing themselves to suffer but eager and pleased to inflict suffering? It is a description that would suit well for savages in a low state of civilisation, though no one would be vehemently eager to ascribe purity and innocence to them.

'Take away from a young child's mind the germs of those highest inhibitory functions that are presupposed by a potentiality of moral development, and you leave the natural passions and instincts free play; not the fundamental instincts of animal nature only, but the secondary or acquired egoistic passions into which, in a complex social state with its differenced interests and pursuits, the primary instincts have undergone development. To lie, to counterfeit, to deceive, to envy, to hate, to steal, to devise cunning means to gratify sense or interest are human enough qualities; everybody may, I suppose, be said truly to be a potential liar, a potential thief, a potential adulterer, even a potential murderer, since whatever sinner any man has been every man needs to pray that he may not be; and therefore it is natural that the congenitally unsound or defective individual inherits and displays some of these potentialities, more or fewer according to the degree and variety of degeneration that he represents. It is because its *kind* is in it, mutilated, fragmentary, disintegrated, and the more special evolution of kind which constitutes its family-nature, that the morally imbecile child sometimes shows startling immoral aptitudes, and talents in vice that certainly could never have been acquired by it; any more than the sexual movements which it may perform with surprising skill could have been voluntarily devised and performed by it, or are voluntarily devised and performed by any one. The degrees and varieties of moral and intellectual defect will, of course, be as many as the degrees and forms of the degeneracy. In the lowest examples of all there will scarcely be a clearly expressed instinct, nothing more than the uncertain show of a vague, feeble and faltering instinct of self-conservation not reaching beyond the mere appetite for food, without any sense of the means to gratify it; at a

little higher level you shall have the sexual and self-conservative instincts in gross, bestial, and perhaps perverted display; and at a higher level still, with the social egoistic instincts in pretty full activity, there will be an entire absence of the altruistic instincts, accompanied it may be by a great deal of cunning intelligence. From all which it plainly appears that in the downward process of the undoing of the human nature belonging to a complex social development an early event is a deprivation or a depravation of moral feeling and will: how indeed could it be otherwise if, as I have previously argued, the altruistic impulse is formed out of the social fusion and transmutation of the egoistic impulses?

Another proof, were other proof necessary, of the innate fixity of immoral or anti-social potentialities, and of the less fixed and stable nature of moral instinct, is that moral action in any of its modes is not an absolute instinct in any person; there is always the consciousness of, sometimes the glance at, and oftentimes the resisted inclination to the opposite course; at any rate there is not the instant, direct, blind, unquestioning obedience to an instinct that there is in a man's walking upright. No one in walking seems to entertain the notion of going on all fours, but the mind of the most chaste and virtuous man alive is invaded sometimes by the intrusive thought of adultery which he has not the least intention to practise. Let a man's heart overflow with brotherly love to his kind, it is still sensible, deep in it, of occasional pulses intimating that at bottom men naturally hate one another. So it is with other evil imaginations of the heart. Were the secrets of all hearts laid open, it would be a strange phantasmagoria of evil thoughts passing through the minds of the best of men, thoughts that they would shrink with horror from letting the tongue put into words; many times no more than vague, half-formed, fleeting fancies, like the changing shapes of drifting clouds, but sometimes marshalled by busy imagination into more or less vivid and coherent tableaux and dramas, without exciting any more horror than similar thoughts do in dreams, when we break all the ten commandments with serene equanimity.

Why not, if the inspiration of the moral sense be at bottom social and external? Obviously, when the supreme inhibitory functions are suspended or destroyed, high reason and will dethroned, these hidden and subjected tendencies will, like slaves in a servile rebellion, come turbulently to the front and disport themselves riotously.

But is it always in such case that only what was unseen is now unveiled by the removal of the restraint, or is there sometimes a positive growth or new development of vice after the removal? Was all that evil actually in the man which he displays when reason and will are dethroned by mental derangement? Was your sister or brother or lover whom you esteemed as a model of virtuous innocence, and against the smallest suspicion of whose purity of mind you would have indignantly revolted, really so degraded a creature, and you knew it not? No, not so: the germs of immoral tendencies were there, as they are in all persons, but they grew and underwent pathological development by mutual interaction after the overthrow of reason and will, not otherwise than as they disport themselves in new functional activities of a transient kind during dreams. After dissociation of mental elements there takes place the association of congenial elements of the dissociate products. Psychologists have a good deal to learn yet before they apprehend adequately the purely organic constructive energies of the brain for good or ill that lie beneath consciousness and do that which we are conscious of only in the result; by virtue of which it is that just as the sound mental organisation when exposed to wholesome influences develops in higher thoughts and imaginations, so the unsound mental organisation which is incapable of wholesome assimilation develops in morbid thoughts and impulses and imaginings. It is the lower nature in the man asserting its autonomy, so to speak, in a rapid degenerative growth when the control of the higher nature is withdrawn. The conception and execution of a new degradation by any one is not more bodily nor less mental than the conception and execution of a great invention or of a great work of art; only in the former case it is the energy of degeneration, in the latter

case the energy of development. To ask that the morbid mind should stay at a certain level of degeneracy and cease to display new morbid functions would be very much like asking that a morbid growth amid healthy structures should not increase and undergo its own changes independently of them ; or to ask that the physiologically inco-ordinate movements of convulsions should forbear to have any pathological co-ordination whatever. Not to exercise and to grow to the exercise of one's better nature, is to exercise and to grow to the exercise of one's worse nature.

Were anybody to observe carefully what goes on in his mind during waking, he would perceive that it was the theatre of as many fantastic, grotesque, incoherent thoughts as in dreams ; but they are fleeting and not attended to, because consciousness is fixed on the events and interests of real life, whereas in dreams they are solely active, usurp what consciousness there is, and so become more or less dramas. Obviously it will depend much on the occupation that each one gives his mind, and on the habits of attention and thought that he has trained it to, how large a part these incoherent vagaries of thought and imagination shall play in his waking mind, and indeed in some measure even in his dreams also. Were men ordinarily in the habit of thinking coherently, as they fondly flatter themselves they are, were they not actually dreaming during more than half their waking lives, their very dreams would be a great deal more coherent than they are now. The incoherences of ordinary dreams are no more than stronger instances of the incoherences of the ordinary thoughts of most persons. By the habitual practice of accurate observation and reflection when awake, owing to the engagement of the attention in the steady pursuit of some line of systematic study, the dreams that take place become less incoherent, are indeed sometimes entirely coherent, and a happy thought perhaps occurs that one gladly retains on waking. Now if it be thus possible by good and regular exercise of the higher faculties of mind to gain some mastery over thought in dreams, how much more is it within our power and shown to be our duty to obtain and exercise dominion over the vain and evil thoughts, in-

clinations and imaginings of the day, and so to hinder their luxuriant growth!

Before passing from the consideration of the nature and meaning of moral imbecility and of its obvious lessons, it will not perhaps be amiss to state that the idiot must of necessity be essentially an anti-social being, passive or active, according to the degree and character of his congenital deprivation: active and anti-social when he displays vicious desires and tendencies, as the moral idiot does; passive and asocial when, by reason of a deeper and more general deprivation of mind, he is capable of little more than a vegetative life. In the latter case, the organs by which he should make sensible acquaintance with the external world and react to its impressions upon him, so as to apprehend it justly, are manifestly defective. The dulness of sensibility, more or less evident in all idiots, is very remarkable in some: witness the new-born idiotic infant that hardly feels at all and shows no instinct to find and little power to touch and grasp the mother's nipple when it is put to the breast; or that older idiot at the Earlswood Asylum that sat smiling at its ease while its toenail was torn off.¹ As one would expect, moral insensibility is more common and more complete among them than insensibility to pain: take as instance the idiot mentioned by Morel who, being accustomed to assist at the funerals in the asylum of which he was an inmate, and to be rewarded for his services on each occasion with a little tobacco, killed another patient during a long dearth of deaths in order that there might be a funeral; or an imbecile boy I saw in an asylum on one occasion who had all but succeeded in strangling an idiot child, giving no other reason for his act than that he 'thought he'd put him out of his misery.' This boy was not entirely devoid of intelligence, as the cool motive of his act showed; moreover, he could read and write a little, and do a simple calculation; and when he was asked the question he acknowledged that what he had done was wrong and that he should not like to be treated so himself, his vacantly smiling face assuming for the moment a caricature-like seriousness and then relapsing into empty giggle. His

¹ Mentioned by Dr. Grabham, late Superintendent of that Asylum.

admission that it was wrong was plainly the mere parrot-like repetition of words of the meaning of which he had no real feeling. Many times the idiot is not less deficient in powers of motor reaction than he is in sensibility to impressions, so that in extreme cases he is quite unable to build up in himself any conception of the external world, and unable in any case to build up an adequate conception of it. And aptly do the sluggish muscles of his expressionless face betray his mental vacancy: for as it is through the eye mainly that we take in or apprehend the world, so it is through the eye that the world as we have apprehended it looks out; or, speaking more correctly, as it is through the muscular system that the external world is built up in us, so the world as it has been built up is expressed in the whole bodily features as they have been moulded by the fit muscular actions of habitual internal states. He is a poor medical psychologist who cannot see idiocy in the walk as well in the talk of his patient; and he will be a very expert psychologist in time to come who shall read a full knowledge of the whole character of any individual in his gait, carriage, conformation, features and look. With that reflection I take leave of the idiot. Placed, as he is, in the midst of a complex social development, without the faculties to feel and to respond to the many and special complex and refined relations of his surroundings, he is necessarily a being apart, isolated, as his name (*ιδιωτης*) implies; and if he has any active tendencies they are such as, being inspired grossly by the self-conservative instinct generally, or by the sexual instinct sometimes, are likely to bring him into trouble.

SECTION III.

DEGENERATION OF MORAL FEELING AND WILL IN DISEASE.

CONTINUING our studies in moral pathology, the next fact to claim notice is that degenerative disease will impair or destroy moral feeling, leaving the person as destitute in that respect as if he were without the capacity of moral feeling in consequence of congenitally defective organisation. Of nervous disorders that affect mental function hysteria is perhaps that which furnishes the strangest and most grotesque examples of depravation of moral feeling and will. It is not merely that hysterical women, without deliberate consciousness on their part, simulate different diseases so closely that it is many times hard and sometimes impossible to say whether they have them or not, deceiving themselves and others, but in extremer cases of moral perversion they wilfully and designedly fabricate diseases and inflict long and painful sufferings on themselves in carrying the deception through. To this class of half deceived and half deceiving impostors belong the ecstasies or stigmatics who fall into periodical trances from which they awake with blood oozing from the palms of the hands and from the skin of the forehead, in imitation of the bleedings of Jesus Christ from the nails that were driven through his hands and the crown of thorns that was set on his head, they having secretly pricked themselves with a needle or pin during the supposed unconsciousness; the fasting girls who profess to live without food, which they contrive to get secretly themselves or to have secretly conveyed to them; the paralytics who keep their beds for years or are wheeled about in Bath chairs, when they have no other paralysis than that of will and could rise and walk at any moment if a strong enough motive were brought to bear upon them; the hysterico-epileptics who fall instantly into and out of the proper convulsions or the proper trances when the proper stimulus is applied; those women again who drop acids on their arms or on other parts of the body for the purpose of

fabricating extraordinary skin-diseases, or who blacken their eyelids in order to keep up the appearances of an illness which they feign, or are afflicted with a blindness or a speechlessness that vanishes with the restoration of moral sanity and will; and many other similar cases too numerous to mention.

If these persons are removed from the conditions of life in which their maladies had origin and afterwards grew to their present habits in response to the attention and sympathy bestowed upon them—the conditions, that is to say, to which their perverted moral natures have definitely adjusted themselves; and if they are placed in new surroundings where the social impressions are different and they feel they have no fitly sympathetic audience to act to, but on the contrary find themselves in presence of fit and firm moral influences brought steadily to bear upon them; they speedily begin to make more wholesome adjustments and so regain their true moral tone and their natural power of will. For them, as a rule, the sympathy and interest of their family and friends are the most favourable audience, and therefore the most unfavourable environments, since they supply social sanction and support to the unmoral imperative of their perverted natures. Meanwhile the endurance they show in inflicting pain on themselves and in keeping up the more or less wilful deception, and the perverted pleasure that they feel in harassing their friends with the alarm and anxieties that they occasion them, are a signal testimony to the essential part which the social medium has in the constitution of the individual's nature; for in no case would they be so afflicted had they not a sympathetic medium. It is impossible to conceive hysteria attacking one who was not a social being, or one again who, Robinson Crusoe-like, was planted alone on an uninhabited island. Their example proves also how the derangement of the social sense leads naturally and inevitably to a deterioration of moral feeling and will: it is demoralisation following desocialisation.

Another lesson we cannot help learning from them is how helpless a purely psychological theory leaves us in a case where it suffices not to have only words that sound

rather than signify; for assuredly it yields not, nor even pretends to yield, the least explanation of the impairment of will—how it has come about, what are its nature and extent, and how it is to be got rid of. Is it that the will's essence is affected, or is it that, perfectly pure and unimpaired itself, its manifestations are hindered and lamed by obstructed nerve-paths? Are we to look upon the will itself as in fault, or are we to look compassionately upon a faultless will struggling in vain with a defective instrument? The psychologist of the study does not trouble himself to answer in that matter, but the medical psychologist who has to deal practically with disorders of will and to bring them back to order, if possible, cannot pass the question by: he must do as mankind with consistent inconsistency have always done actually, in spite of their theory of the spiritual separateness of will—treat its derangements through the body exactly as if it were entirely dependent on the body, product not prime mover.

In order not to delude himself with words that mark no definite ideas, but to have substantial meaning in the terms he uses, he must learn to fall back upon the physiological conception of a number of confederated nerve-centres, co-ordinate and sub-ordinate, as the physical substrata of all mental functions. To him, as he then conceives matters, the just co-ordination of these confederated centres will be seen to be the essential condition of will, and the completest co-ordination the condition of the best will; which nowise therefore predetermines and effects the process, as the common illusion is, but by its being marks and attests the accomplishment thereof. Now in these hysterical persons, whose extreme mobility of nature shows itself at the best of times by rapid transitions of moods, notions, and caprices according to the different impressions which they undergo, there is a certain instability in the confederation of nerve-centres; that is to say, instead of being bound together firmly in compact association these are prone to easy dissociation in consequence of moderate disturbance, whether moral or physical, and to take on more or less separate action. It is such dissociate function that is the disinte-

gration of will and the desocialisation of the individual. Any one who is brought under the dominion of the predominant or exclusive activity of one of these centres or of an allied group of them, the functions of the rest being inhibited and perhaps almost completely suspended for the time, is necessarily an incomplete and changed being; not an integrate self but absorbed as self in the special and partial function, and insensible therefore to those relations to which the other centres separately or in the imperial union of the whole minister: mentally disintegrate and therefore morally deteriorate. The *consensus* gone, the *conscience* goes with it. The condition of things is of the same kind as, though much less deep in degree than, that which seems to exist, reaching its climax, in such discontinuous mental states as hypnotism, somnambulism, catalepsy and other allied disorders.

Similar considerations will apply to those hysterical conditions, not calling for description here, in which socially morbid impulses are exhibited sometimes by young women—especially when they are somewhat weak-minded, or have inherited a distinct predisposition to mental derangement—who have lately passed through the physiological changes of puberty: for example, impulses to steal, to set fire to houses, to make false accusations of indecent assaults, and even sometimes to kill. When, in consequence of those changes, the newly awakened functions of the reproductive organs come into action and enter into the mental life through their representative centres in the brain, they produce a commotion there which is the commencement of a revolution of the entire mental being; and if the nerve-centres are unstable, it easily happens that their equilibrium is overthrown, and that instead of compactly associate function of the whole, a disassociate and predominant function of one centre or group of centres is set up.

The odd thing from the psychological point of view is that all these hysterical persons are cured best by moral means; that a vigorous moral shock or a suitable moral discipline is the most effective agent that can be applied; that the physical disorder of the confederate centres is removed and the unity

of their function restored by operating upon that spiritual agent in the background which, according to the psychological theory, has no point of contact or relation with them. Always, however, is the psychologist willing, notwithstanding his theory of their absolute separateness, to admit the power of mind over body more readily than the power of body over mind: it is only in the one direction that he desires the great gulf which he places between them to be impassable. From the physiological point of view it is not strange at all that the social nature incorporate in the individual nature responds to the proper social stimuli, and that when the dormant or suspended energies of the inhibited centres are aroused the energy of the predominantly active centre is withdrawn or inhibited; the excitation of a neighbouring centre is the diversion of energy from the active centre; the restoration of the normal equilibrium the destruction of the morbid equilibrium.

Another disease which effaces moral feeling temporarily, and even shatters moral character sometimes, especially in young children, is epilepsy. Somehow, though we cannot tell how, the exquisitely fine and complex organisation of nerve-structure is damaged by the intense molecular commotion which is the condition of the epileptic explosion. Perhaps it is that the fine nervous substrata of this supreme organisation are so exhausted by the discharge, the principal trait of which is the violation or the abolition of normal co-ordination, that they are unable immediately, and in some cases ever, to recover their inhibitive powers and so to take their proper part in the co-ordinations and sub-ordinations of function. It is in that case a sort of paralysis of function following convulsion. Undoubtedly it has happened that a child's conscience has been as clean effaced after a succession of epileptic convulsions as the memory is effaced sometimes in like manner; and in that case the child is made by morbid art very much like the child that is by nature congenitally destitute of moral sense. Those who see much of epilepsy are witnesses of equally remarkable moral transformations in connection with the seizures in the adult; the changes either preceding or following the fits or in some

instances occurring in their stead. Looking first on *this* and then on *that* picture of the person in the two states, it is hard to realise that they are pictures of the same person. Perhaps the change goes no deeper than an exceeding irritability and suspicion and an extreme aptness to take offence where not the least offence was meant or given, but in other instances it is so great as to amount almost to a transformation of character: suspicion, surliness, indolence, irascibility, and a disposition to false accusations and vicious deeds taking the place of candour, amiability, good temper, an obliging disposition and gentle behaviour. Happily the abrupt change is mostly a passing phase: it might be compared well to that which takes place when a clear and cloudless sky is overcast suddenly with dark and threatening thunder-clouds; and just as the darkened sky is cleared by the thunderstorm which it portends, so the gloomy moral perturbation is discharged sometimes by the epileptic fit or fits, and the mental atmosphere cleared, the patient returning soon to his natural character. Not always, however: for the effect of a continued epilepsy, especially in children, may be a permanent deterioration of moral character; the functional impairment, when unremoved, lapsing by degrees into structural impairment. Be that as it may, the fact is plain that a physical cause of some kind, deranging the fine, intricate, and probably unstable organisation which subserves the highest functions of mind—those, namely, of moral feeling and will, abolishes temporarily those functions.

A similar derangement of moral feeling and will may follow the shock of an attack of acute mania in a young person of fourteen or fifteen years of age, especially if it be in a person who, inheriting a predisposition to insanity, has unstable nerve-centres. The order of events is in this wise: after the abatement of the acute excitement there is apparent recovery, for the intellect regains its clearness and sharpness in the ordinary relations of life, but there is not a concomitant return to the normal moral character; on the contrary, a persisting moral alienation shows itself in extreme self-conceit, impudence, indolence, deceit, wilfulness, even violence; therewith a complete moral insusceptibility,

so that, though knowing right from wrong well enough, he is not impressional to good influence, likes and does the wrong, and evinces no desire to suit his conduct to his knowledge. The social self in him is extinguished. A plain proof this, if proof were necessary, that a keen intellectual apprehension of right and wrong is useless to generate a good will without the inspiring and driving force of good feeling. • In any case there is very little altruistic feeling in the mind of a boy or girl before puberty, for which reason an alienation of mind before that great physiological event has taken place and brought about its resulting evolution of new thought, feeling and desire, usually presents many features of moral derangement; still in all healthily constituted beings of civilised parentage there is a certain moral germ or capability on which education works; and that it is which has been damaged or destroyed by the storm of the mania. The interpretation of matters is something of this kind: a natural instability of the supreme nerve-centres, the ill-boding gift of inheritance; easy and complete overthrow of their unstable equilibrium in the excitement of the mania, which in such case breaks out on a comparatively slight occasion and passes quickly into extreme incoherence; incomplete restoration of normal stability after the subsidence of the mental storm; a consequent impairment or extinction of the most fine inhibitive functions, which means an incapacity to bring the highest regulating ideas and feelings to bear upon the lower feelings and impulses.

The dissolution of the union of the federated supreme nerve-centres may of course take place without evident statical or structural disorder—may, that is to say, be purely functional in the first instance; all that has happened is that a mental equilibrium somewhat unstable naturally has fallen into a temporarily more stable equilibrium of an abnormal or morbid kind. In all forms of mental derangement there are two underlying pathological conditions: the one dynamical, being a functional dissociation or severance of the nerve-centres that have been organised to act together physiologically, whence naturally for the time being an incoherence of function and a discontinuity of individual being; the other

statical, consisting in a structural change in the nerve-cells or in their uniting fibre, whence a permanent disintegration of the substance of ideas. The physiological order of development is association and then integration of ideas, the pathological order of degeneration is dissociation and then disintegration of them. I am not prepared to say which condition of things obtains in the child whose moral sense has been destroyed by an attack of madness—whether, that is to say, the main trouble is an interruption of the bonds of association, a dissolution of partnership, so to speak, or whether some minute structural change in the nerve-elements that no microscope can detect has been produced; but in any case the former condition, in which patient and systematic training, intellectual and moral, might work a cure, is obviously a less serious mischief than the latter, in which it is hard to believe that a cure could ever be effected. Note by the way, that in using the term instability of mental organisation one may, conformably to the foregoing theory of pathology, properly distinguish two conditions: (*a*) an instability of the association or federation of centres, whereby they are prone to dissociate function; and (*b*) an instability of the nervous molecule itself, whereby it is prone to easy explosion.

There are other conditions occurring in connection with the development of the reproductive system at puberty that may occasion a good deal of moral disorder, but I need not discuss them here. On physiological grounds one might venture to predict that to eliminate the sexual system and its intimate and essential mental workings from the constitution of human nature, would be to eradicate the vital principle of morality, of poetic and artistic emotion, of religious feeling among mankind. Eunuchs, so far as information about them goes, lend strong support to the opinion, since they are for the most part deceitful, liars, cowardly, envious, malignant, destitute of social and moral feeling, mutilated in mind as in body;¹ and it is, I think, still

¹ 'Certainly there is a consent between the body and the mind; and where Nature erreth in the one, she ventureth in the other. *Ubi peccat in uno periclitatur in altero.* . . . Kings in ancient times (and at this present in some

further strengthened by observation of the mental and moral effects of the development of the reproductive system at puberty, and of the special features of the different forms of mental derangement that occur at different periods of life. What then shall be said of those holy men of old of whom we are told that they made themselves eunuchs for the kingdom of heaven's sake? This certainly: that they emasculated virtue in order to escape from the temptations of vice; and that only would they find the kingdom of heaven a fitting place for them if the glorious company of angels, apostles, prophets, and holy men and women there were moral eunuchs. In our dealings with physical nature we conquer not except by obeying; and so likewise in the conflict of the passions of our nature it is necessary to acknowledge and assimilate their true force and character, and so to get the best use of them, not by vain and foolish attempts to extinguish them as mortal enemies, but by wise and patient efforts to turn and guide and use their forces in the path of a higher development. A castrated chastity is a chastity without contents, neither virtue nor vice in any character. The holiness of Heaven postulates the root-passions of Hell.

The next examples of moral degeneracy to claim notice are those that are met with often at the commencement of mental alienation, before the person is so far deranged as to be deemed positively insane. Almost every kind of mental disorder begins with a moral alienation, not very marked perhaps at the outset, but so thorough after a time in some cases that a person may seem the opposite of what he was in feeling and conduct. Then the hidden potentialities of his nature reveal themselves in a sad and startling development. In place of diffidence and self-restraint we see exhibited a bold and presumptuous address; in place of refined manners and modest conversation, coarse behaviour and indelicate allusions; in place of chaste and decent con-

countries) were wont to put great trust in eunuchs; because they that are envious towards all are more obnoxious and officious towards one. But yet their trust towards them hath rather been as to good spies and good whisperers, than good magistrates and officers.'—Bacon, *Essay on Deformity*.

duct, indecency and even open lasciviousness; in place of prudence in business, foolhardiness in speculation; in place of candour and honourable dealing, duplicity, guile, and even vicious and criminal tendencies:—these are the transformations that are witnessed in different cases. Moreover, this moral alienation, which is manifest before there is positive intellectual derangement, accompanies the latter throughout its course, and may last for a while after all disorder of intelligence has gone; it is the truer and deeper derangement, being a derangement of character; and therefore it is notoriously not safe to count the recovery of a person sure and stable until he has returned to the sentiments and affections of his natural character.

Here then we perceive plainly that when the mind undergoes degeneration the moral feeling is the first to show it, as it is the last to be restored when the disorder passes away: the latest and highest gain of mental evolution, it is the first to witness by its impairment to mental dissolution: the first effect of mental degeneration, it is the last to witness to full mental regeneration. In undoing a mental organisation nature begins by unravelling the finest, most delicate, most intricately woven and last completed threads of her marvellously complex network. Were the moral sense as old and firmly fixed an instinct as the instinct to walk upright or the more deeply planted instinct of propagation, as many people in the presumed interests of morality have tried to persuade themselves and others that it is, it would not be the first to suffer in this way when mental degeneration begins; its categorical imperative would not take instant flight at the first assault but would assert its authority at a later period of the decline; but being the last acquired and least fixed, it is most likely to vary, not only, as I have shown, in the pathological way of degeneracy, but also, as might be shown abundantly, in physiological ways, according to the diversities of conditions in which it is placed. Like all forming organic matter, it is plastic and exhibits a circumstance-suited power; and therefore it varies in its sanctions in different nations, societies, sects, castes, individuals in a way that a thoroughly formed and fixed instinct,

like the instinct to walk upright, does not. Why should not a savage steal when he wants food, or kill his mother when she is old and useless, or sell his sister's children, since it seems the most natural and proper thing in the world to him? 'Tis the categorical imperative of his practical reason, the instinct of right in him.

In this relation the most interesting form of mental disease perhaps is that which is known in medicine as general paralysis; interesting because it is usually accompanied with a signal paralysis of moral sense from the outset, and because we can trace nearly from their first beginnings morbid changes in the brain going along with the decay of mental and motor powers. Not exact and complete relations, it is true, but such broad general relations as warrant the belief of exact and complete relations; while towards the end, when the waning mental and motor functions are well-nigh extinct, there is plain evidence of waste and destruction of nerve-elements suiting well with the decrepit functions. At the beginning of the disease the prominent mental symptoms in the most typical cases are those of deterioration of moral sense and will; the earliest derangement of all being a great exaltation of ideas and feelings and will very like that which characterises the early stages of alcoholic intoxication. Indeed, it is an example that may help us to a conception of the physical nature of the initial process of a moral derangement. An active determination of blood accompanies an excessive action of the nerve-centres, the result of the agitation or commotion in them being an impairment of the interinhibitive functions; and accordingly the individual cannot apply his mind closely and exactly to impressions, social or physical, so as to get a real touch or hold of them and of their just relations to one another—that is to say, to apprehend and truly reflect them as they are. Thence flows the appearance of an egoistic disdain or disregard of them; all the more marked because the lower feelings of the excited and exalted self, which preserve the unity imparted to them by the organic life, assert themselves with an unaccustomed freedom from reserve. How indeed can the individual perceive

properly the object and its relations if the group of centres that have been organised to act together in the perception of it, and the associate action of which is the perception, cannot combine as they should owing to commotion in them? And how can he, unperceiving the impressions justly, feel and act justly in relation to them? The unity of his higher nature is more or less impaired by the excessive stimulation—its altruism suspended; the unity of his lower nature remains and is made more self-assertive by it—its egoism exaggerated. So it is perhaps that you get the moral impairment of incipient drunkenness and of the first stage of typical general paralysis.

A not unfrequent feature of the moral deterioration of the disease, striking enough in some cases, is a persistent tendency to steal, the person stealing stupidly for the most part what he does not particularly want and perhaps makes no use of when he has stolen it. It is not uncommon therefore for those who are victims of the disease in its early stages to be sent to prison and treated there as criminals, notwithstanding that a duly skilled medical observer might be able to say, and perhaps does say, with entire certitude, from an appreciation of the physical and mental symptoms, that the supposed criminal was attacked by an organic disease of his brain which had destroyed his moral sense at the outset, which would go on to destroy the other faculties of his mind in succession, and which would end by destroying life itself. Not wickedness but disease is what we are really confronted with in that case; and though with the imperfect instruments of research at our present command we cannot discern the actual minute structural changes which are the physical conditions of the deteriorations of character, and link them in an exact correspondence the one with the other, we feel none the less sure of their existence and of the unfailing correspondence. In the visible destructive changes that are patent after death we recognise the extreme pathological issues of the minute molecular changes which, though unseen, we are sure are there at the beginning.

Note here and consider for a moment, in passing, the impulse to steal which is so marked a feature in some,

though not in all, cases of general paralysis. Whence comes it? It would not be true to say that there is a hidden instinct to steal in all persons who fall victims to that disease, an instinct that is unveiled by its ravages, since all general paralytics do not exhibit it. But it is true that there is in every one a strong self-conservative instinct, which in the domain of complex social evolution shows itself in manifold secondary modes of self-preservation and self-aggrandisement. The information we need, and which must be set down as entirely wanting, is a full and exact previous history of the character of the individual who exhibits this symptom, in respect particularly of the strength and forms of his acquisitive tendencies, and the full and exact character-histories also of the members of his family, since in one or another of them we may perceive in full display what lay in germ only in him. It is a close and rigid study of *individual psychology* that is wanting and is wanted; for to learn, as we do perhaps in some cases, that insanity or another form of nervous disease existed in his ancestors, though a distinct advance on anything that pure psychology can tell us, is still knowledge so vague and general as to be of little more value than it would be to know that he was born when this or that planet was in the ascendant. Had we such exact histories at our service, and could we thereupon find our way through the complicated interactions, by tracing the orderly developments which undoubtedly exist in the seeming disorder, it is certain that we should discover the required explanation. The impulse to steal would perhaps be revealed as the pathological evolution of strong or strongly self-regarding acquisitive impulses in that family nature.

More than a mere knowledge of the family bent of nature, however, would be needed in any case: in order to understand fully the varieties of moral derangement, it would be necessary to study them in relation to (a) the exact character of the individual as it has been formed by inheritance and training; (b) the particular disintegration of it by disease, according to the degree, extent and particular character of the disease—that is to say, its

special morbid range and the special damage it has done; and (c) the subsequent pathological developments of the dis-integrate character; which may be of little moment in some cases, as in general paralysis, where the severity of the organic disease, entailing a mental destruction, precludes them, but of great importance in other cases, as for example in chronic hereditary insanity, where there is no such hindrance to the developments of morbid or degenerate varieties of human nature. Let no one then at any time deceive himself by laying the evil impulses within him to the charge of a devil or any other external principle of evil, but let him rather search diligently for the source of them in himself and in his ancestral antecedents, and endeavour patiently to eradicate them in himself and in his posterity.

Here let us pause for a moment in order to mark the ground which has thus far been gained and to see where we now stand. It was shown first, being set down as a fact of observation, that mental derangement in one generation is sometimes the cause of an innate deficiency or absence of moral sense in the succeeding generation, the child bearing the burden of ancestral depravation in a congenital deprivation; and we now place by the side of that statement this second observation—that moral feeling, the finest flower of social evolution, is the first function of mind to be affected at the beginning of mental derangement in the individual. Thus it appears that an absence or impairment of moral sense marks the way of degeneracy in the individual and through generations: as man begins to go to pieces, alike as individual, as family, as society, as nation, as humanity, the moral feeling goes: the last to inspire him it is the first to expire in him.

The next examples of marred moral character and will to which I call attention are those which sometimes follow injuries of the head. It happens in these cases after an injury that may or may not have caused immediate symptoms of a serious nature, that slow degenerative changes are set up in the brain, which go on in an insidious way for months or years and produce first great irritability, then little by little a weakening, and eventually a destruction of mind.

The person who appears perhaps to be all right soon after his accident turns out to be all wrong, and irretrievably wrong, years after it. Now the instructive matter is that the moral character is usually impaired first in these cases, and in some of them is completely perverted without a corresponding deterioration of the understanding. The injury has given rise to disorder in the most delicate part of the mental organisation, the part which is only separated from actual contact with the internal surface of the skull by the thin investing membranes of the brain; and once this delicate organisation has been seriously damaged, it is seldom that it is ever restored completely to its former state of soundness. The first symptom to attract notice is a change of temper and disposition for the worse, the most fine sensibilities and the highest inhibitive functions having been plainly impaired. He is easily and unduly excitable, especially by alcohol, a little of which will produce a great effect, perhaps rendering him actually insane for the time its effects last; he is prone to outbreaks of anger which mount almost to outbreaks of maniacal fury; may indulge in excesses that are quite foreign to his natural character; a moderate fever or other inflammatory disorder will give rise to delirium; he is easily exhausted by mental exertion to which he finds himself unequal; is incapable of systematic and steady application. The meaning of these symptoms is that the co-ordination of the supreme mind-centres has been so weakened by their disorder, their equilibrium rendered so unstable, that it is easily overthrown by causes that would have no such effect upon a sound mental organisation. As matters get worse, an increasing loss of memory and other symptoms of mental decay show themselves, and the course of events is pretty regularly, or with intercurrence of acute mania and perhaps epileptic fits, to dementia—the term of the morbid “degeneration.”

Here it will be proper to take particular note of the significant fact that one whose mental organisation has been lamed by injury to the head in the way just described is, at the commencement of the trouble, very much like in general temper and quality of mind one who has inherited a distinct

tendency to insanity: his weakened brain is brought to an unstable state very much like that which the latter has inherited naturally. Easy excitability, especially by alcohol, outbursts of passion that overflow into torrents of incoherent fury, sudden and passing, delirium lighted by a moderate fever or by other causes which would be inadequate ordinarily to produce that effect—these and the like are signs of weak inhibitive powers of the higher social or moral sort; the natural result of such weakness being the indulgence of egoistic tendencies, anti-social in their operation, and an ever-increasing mischief as habit makes the way of disorder easier and the return to order harder. Later on more shall be said concerning the qualities of a brain whose temper has the flaw of a predisposition to degenerate mental function; at present I desire only to note the resemblance between it and the brain that has been damaged by the effects of violence. Assuredly passion and prudence, self-control and reflection, right and wrong, even pleasure and pain have very different meanings to a person so constituted or so maimed morally from what they have to one who has no reason whatever to blame either inheritance or accident.

To discuss at length the abstract question whether pleasure is the aim of human conduct seems to be hardly a more fruitful procedure than it would be to discuss whether stockings are the aim of human feet. I suppose if mankind had not practically felt it a proper aim to pursue pleasure and to shun pain they would not have invented Heaven as a place to be aspired to, and Hell as a place to be recoiled from; a reflection which may be allowed to settle the abstract question for us here. Certainly a prior obligation that would properly lie upon us before we made the attempt to ascend into the high regions of abstract discussion would be to find a solid standing ground in a concrete study of the particular individual and his particular likings and dislikings, pleasures and pains, as determined by natural temper, training, age, constitutional state and the like; for certain it is that one man's pleasures are another man's pains, and that the same person may find very bitter at fifty years of age what he relished acutely at twenty-five. Moreover, if pleasure, is it

immediate or distant, seeing that it depends on the individual's foresight whether he looks beyond the moment, or the hour, or the day, or the year? And, if distant, is it minutes, years, or centuries distant, since the direct pleasure of the moment may be a sacrifice of self to an unborn posterity? To settle abstractly whether pleasure is or is not the end of human conduct is very much like settling the question after it has been emptied of its contents.

Thus far it has been shown that moral feeling and will are impaired or destroyed by degeneration going on through generations, by the disorganising effects of disease, and by direct physical injury to the brain. I now go on to point out that the same effects are produced by the chemical action of certain substances which, when taken in excess, are poisons to the nervous system—by the abuse of such nerve-stimulating and nerve-narcotising substances as alcohol and opium. Nowhere is to be found a more miserable specimen of degradation of moral feeling and of impotence of will than is presented by the person who has become the abject slave of either of these pernicious indulgences. His finest moral sensibilities are extinguished and his least fine blunted: steadily sensitive to his own selfish wants and persistent to gratify them, he is insensible to the feelings and claims of his family whose dearest interests he sacrifices without real compunction, and indifferent to the obligations and responsibilities of his social position; he will often profess you very fine sentiments, and perhaps indulge in the pleasant debauchery of a visionary imagination inspired by intensely egoistic feeling and stimulated by the drug, but uncontrolled by realities, the disciplinary and disagreeable hold of which the drug has deadened or destroyed; for the most part he is untruthful and untrustworthy, and in the worst end there is not a meanness of pretence or of conduct he will not descend to, not a lie he will not tell, not a degradation he will not undergo, scarce a fraud he will not perpetrate, in order to gratify his absorbing craving. It is not enough to say that passion is strengthened and will weakened by indulgence, as a moral effect: that is so no doubt, but beneath that effect there lies the deeper fact of a physical deterioration of nerve-element;

for the alcohol and the opium enter the blood, are carried by it to the inmost minute recesses of the brain, and act there injuriously upon the elements of the exquisitely delicate structures. So its finest, latest organised, least stable parts which subserve moral feeling and supreme will are marred. Vain is it to preach reformation to one who has brought himself into this damnable predicament; if any good is to be done with him he must be restrained forcibly from his besetting vice for a long enough time to allow the brain to get rid of the poison, which it will do pretty soon, and its tissues to recover their healthy tone, which they will take a long time to do, if they ever do. Moreover, the tissues have sometimes had the congenital misfortune to begin with the original taint of a depraved tone; they have inherited the proclivity to drink, it is ingrained in their nature; and once the craving is stirred it is kindled quickly by gratification into uncontrollable desire.

There is nothing pleasant in the taste of alcohol or of opium—at any rate in the first instance before experience of their pleasing mental effects has associated that pleasure with the experience of the means to it, and so, by a fusion of the pleasure of the end with the means, produced a vitiation of the natural taste—to make men betake themselves to them so eagerly as they do all over the world. This eager use running headlong into abuse is evidence of the longing that there is in human nature for the ideal; for an elation of feeling, an expansion of sympathy, a freedom of mental power, an exaltation of the whole nature, mental and bodily, are obtained thereby which are denied to it by the real. The low savage does not care for the taste of rum, but once he has had the ideal opened to him by feeling the exhilarating effects of it he will sacrifice everything he possesses, even his last blanket, to procure it, and abandon himself unrestrainedly to its effects whenever he has the opportunity; so that there is no surer way of initiating and hastening the decline and extinction of savage races than by the introduction of alcohol among them.¹ Herein we see a curious proof

¹ Except perhaps to bring them into contact with civilisation, and to expect them to conform to its usages! To impose regularity and constraint on

of the wide gap that there is between the lowest human being and the highest animal, for no animal, except perhaps here and there a monkey or an elephant, appears to have such a taste of the ideal kindled in it by alcohol as to overcome the repugnance of its natural taste. When it is made a reproach to the drunkard that he degrades himself in a way which no brute ever does, he may claim that as proof of his higher capacity and higher aspiration, confessing however, if he be penitent enough, to a cultivation of the ideal in a wrong fashion. Were he mere brute he would be content, like it, to live in the gratifications of his senses: it is because he has higher yearnings in him that he is dissatisfied with the real of sense, craves a compensating ideal of the imagination, and creates it for himself either as drunken bliss, or as a vision of earthly grandeur in some shape or other, or as a life of eternal happiness in the world to come—a house not made with hands, eternal in the heavens. Pessimism in fact supplemented by optimism in theory—such the eternal plan of human life; wherefore the two rules of it come finally to be, according to the dark or bright ground-tone of the individual's nature, according as it is instinct with the hard logic of reason or animated with the warm hope of imagination—*Il faut cultiver notre jardin*, and *Il faut cultiver notre idéal*.

natures that demand lawless liberty; to create in them wants which they have not and which they think you strangely contemptible for having; to attempt to instil abstract thoughts and moral feeling into beings whose language is a vehicle incapable of conveying them, who have only sensations and few, simple, and mean ideas, and who practise a gross sensualism;—what is it but to break up the foundations of their mental being? To beings of so low and simple a mental organisation Christianity is a disintegrant—as pernicious almost as alcohol.

SECTION IV.

THE MORAL SENSE AND WILL IN CRIMINALS.

HABITUAL criminals are a class of beings whose lives are sufficient proof of the absence or great bluntness of moral sense. It is the common experience and common testimony of those who have much to do with these antisocial varieties of the human kind that a certain proportion of them are of distinctly weak intellect, albeit not sufficiently so to warrant their seclusion in asylums as idiots or imbeciles. They abound among vagrants, partly from a restless disposition and an inability to apply themselves to steady and systematic work, and partly because they do not easily find or keep employment. They are addicted to petty thefts, to acts of wanton mischief, and, much more so than the criminals that are not of such plainly low organisation, to arson, to sexual offences, and even to homicide. The external conditions of civilised life are too fine and complex for their blunt and defective capacities, and they are unable to adjust themselves to them so as to procure the gratification of their propensities or even the means of living; hence it is that, urged by their instincts and impatient of restraints whose nature they are incapable of appreciating, they are prone to explode in some criminal act. Sometimes they are provoked to a passionate act of violence by those who tease or otherwise irritate them; sometimes they are impelled to imitate a crime of which they have read or heard spoken; sometimes they are used designedly as instruments by criminals of stronger intellect whom they look up to with a sort of respect. Their fate is indeed a hard one. Congenital outcasts from the social organisation by the preordination of the society that has produced them, it is nevertheless demanded of them that they should conform to the laws of a body of which they are not a part, but from which they are apart; and they naturally fall back upon the inalienable right of the individual to be: that right of which no one can be deprived or deprive himself, *quo nemo cedere potest*, as

Spinoza says—the right, that is to say, to live and to pursue the means to live.

In prison they prove troublesome to the officials, partly because of their irritable moods and small self-control, and partly because other prisoners, taking advantage of their weakness, instigate them to acts of insubordination. They will generally listen respectfully to the admonitions of the chaplain and express readily and superabundantly the penitence which he solicits; one of them, for example, of whom Dr. Guy makes mention, confessed to as many as five murders which he had never committed; but they have no real sense of the wickedness of their doings, feel no true remorse, are incapable of genuine penitence. Their defective natures will not take the stamp of virtue. Their lives therefore are spent in alternations of long periods in and of short periods out of prison; for after undergoing their punishment for some offence or other they are discharged at the expiration of their sentences, and, soon committing crime again, are soon convicted again. Prison officials who perceive them to be mentally weak and irreclaimable, and know how surely they will resort to their criminal ways when they are free, would gladly see a way to some means of detaining them in a special establishment at the end of their terms of punishment or immediately after conviction, but as they cannot certify them to be actually insane or imbecile in the legal sense no such protection is given. Some of them are epileptic, and others of them have sprung from families in which epilepsy, insanity, or some allied neurosis exists. Malformed or deformed in part or whole of body, with irregular and bad conformation of head and face—that has been the representation of criminals by sculptors and painters at all times; and it may justly be taken to be the intuition of experience, the consolidated result of observation that the organisation of the wicked is commonly defective. Pity it is that no better use is made of beings so mal-organised as to be utterly incapable of moral sensibility and therefore of repentance and reform, than to punish them with sufferings which do them no good, and after that to turn them loose again upon society in

which they can make no living room for themselves except by crime. It is as if the bodily organism, having bred a morbid element which by its nature could not take part in the healthy physiological life, but must cause disorder of it by its presence, were not solicitous to get rid of it altogether by excretion or to render it harmless by isolation in a morbid capsule or in a special morbid area, but were to launch it again and again after each brief period of isolation among the elements of the healthy structures in order to generate new disorder. To educate them is not to improve them, it is simply to render them more dangerous.

Weak as these habitual criminals sometimes are in understanding, it is instructive to observe how they consort together by an elective affinity and are united into a loosely gregarious society by bonds of a kind—for example, by the respect which the weaker has for the stronger criminal, by their mutual aid and defence against the common enemy on which they prey, by the secrecy which they have to preserve, by the thieves' honour which they show in the division of spoils, and by the like tacit leagues: a society that they would not keep up, since they would never conform willingly to any code, but for the constant pressure and always menacing danger from without. In these rude rudiments of morals they yield us an incidentally instructive example of a moral sense in the making, for they consider it entirely wrong to do to one another what they do not think it in the least wrong to do to society as a whole; not otherwise than as, according to the moral code of the Old Testament, 'Thou shalt not kill' and 'Thou shalt not steal,' having a specially tribal application, did not mean, 'Thou shalt not kill a Canaanite' and 'Thou shalt not spoil an Egyptian.'

A class of people who, congenitally destitute of moral sense, have not the sensibilities to feel and respond to impressions of a moral kind, any more than one who is colour-blind has sensibility to certain colours—ought to be deeply interesting to the metaphysical psychologist, who, however, has strangely ignored them in the construction of his philosophical theories. They are apt instances to prove to him that if, as he alleges, the moral sense has not been acquired

in the process of natural evolution, but infused by a supernatural inspiration, it may at any rate be degraded and lost by the operations of natural law in a process of human degeneration. Degenerate varieties of the kind who would have to be regenerate in order to be fit for any true social use, they mark the categorical imperative of the moral sense brought down to zero. What more important and helpful to him in the construction of a moral scale from positive data than to have the zero thus definitely fixed? Unfortunately they have not yet been made the subject of exact and positive inquiry, although I cannot doubt that a thorough and complete scientific study of one such person, and of the antecedent conditions of his being, making manifest how he had come, what exactly he was, and what was the social meaning of him, would be more instructive than all the scholastic disquisitions concerning the moral sense that have been put forth by ambitious thinkers. It is in truth sad to reflect that no scientific use is made of the abundant material for practical studies in psychology which our prisons contain, and that when the world is startled by some atrocious crime, and shocked by the subsequent exhibition of an entire moral insensibility in its perpetrator, it thinks it has done enough when it has uttered a loud howl of reprobation and insisted on his being put out of the world or out of the way. The makers and administrators of law ought really to have some pity for these defective beings suffering, as they do, under an irremediably bad organisation; but so far are they from showing compassion for them that they punish them angrily, not with the hope of reforming them, seeing that experience has proved that to be impossible, nor with the hope of warning and improving others like them, seeing that their special examples can be no benefit to those who, defectively organised like them, are equally beyond remedy, but in retaliation for what they have made society suffer by their wrong-doings. Therein, though they cannot plead the warrant of philosophy, they rightly plead an imitation of the Divine exemplar who, claiming vengeance as his own, has given it full play in the infliction of eternal punishment: the institution of infinite torture, paradox as it seems,

being the necessary and logical result of God's infinite love for Himself.¹

So much for the victims of a bad organisation who are urged into crime by instincts whose natural restraints are wanting, whatever their circumstances of life, and are not to be reformed by instruction, or by example, or by correction. Another class of criminals, standing at the opposite end of the scale to them, comprise those who, not being positively criminally disposed by nature, have yet fallen into crime in consequence of a gradually increased or a suddenly inflicted pressure of adverse circumstances. They were probably much like hundreds of persons who have never overstepped the conventional line between their trade-morality and acknowledged crime, but they were so unfortunate in the changes and chances of life as to be exposed to suddenly urgent or to insidiously sapping temptation; and they succumbed. Plainly they had not the best moral fibre, or they would have stood firm in resisting whatever temptation they were exposed to, but they were not worse endowed in that respect than many who, by reason of more fortunate circumstances, have escaped a similar adverse stress and fate. A great deal of the virtue of life is owing to the absence of the fit provocation to vice; if among a hundred women one commits adultery, may we not safely say that there are some of the ninety-nine others who would have done the same in the same circumstances?

Between the two classes of criminals mentioned, the nature-made and the circumstance-made criminal, will come a third class comprising those who, having some degree of criminal disposition, would have been saved from crime had they enjoyed the advantages of a good training and of favourable surroundings, instead of growing up without education and amidst criminal surroundings. The circumstance-suited faculty of the brain adapts itself readily to the criminal atmosphere and grows to that mode of exercise. And in this relation it certainly ought not to be forgotten that there is education and education, and that it is small profit to teach a child the distance of the sun from the earth,

¹ See an article in the *Month* of January 1882, by the Rev. Father Clark.

if it be not taught at the same time to know, and not taught to know only but trained to feel, the distance between its higher and lower natures.

This division of criminals into three classes serves well for convenience of apprehension, but of course they are not thus separated by actual divisions in nature; on the contrary, they are united by all varieties of intermediate cases; degrees of difference of moral strength in different individuals being as constant and as common as different degrees of intelligence. To apportion responsibility exactly according to deserts would be a task exceeding the resources of human justice; but to attribute the same measure of moral capacity to all persons is to accuse divine justice, which has ordained things far otherwise. Meanwhile it is not a little curious to reflect that while all the world entertains more or less pity for the criminals of our second and third classes, making allowance for them as victims of unfortunate circumstances, it has no sort of pity for those of the first class, who are really the victims of a worse fate—the fate made for them by the tyranny of a bad organisation. I suppose the reason of that is that they stir an instinct of repulsion, because, regarded from the standpoint of the human ideal, they are felt to be less human. But why, viewing the matter from a more detached standpoint, should a lame mind provoke any more anger than a lame body?

The foregoing reflections suffice to show that when man's nature is made the subject of serious study the instigation of the Devil is not an admissible explanation of its evil impulses; that in all cases we must seek elsewhere for a natural cause of the effect defective. Nor is it again enough to think of such impulses as self-procreated in a spiritual entity, springing up mysteriously in it from nowhere, and not legitimate subjects of scientific inquiry. Man will never truly realise the progress in self-improvement which he is capable of making, until he searches out exactly the laws by which he has become what he is and uses his knowledge systematically to make himself different. The problem is the same here as it is in the lower sciences—provision for the purposes of

action : to observe in order to foresee, and to foresee in order to modify and direct. And the method to be employed is the same as that which has served so well in them—that is, the patient and diligent application of the method of observation and induction. At one time it was the general belief that earthquakes, destructive storms, and other great physical calamities were the work of Satan ; the belief that lunatics were possessed with devils, who instigated their violent deeds, continued in vogue until quite a late period ; and it is still a belief in many quarters that the evil impulses of the wicked are inspired in them by the Devil, who by the loss of successive provinces in nature has now been driven to his last entrenchment in the human heart. And it seems likely that he will soon be driven out of that ; for as we search out diligently the causes of those great physical calamities of nature which were once thought to be of supernatural origin, and endeavour to prevent or to lessen by suitable means and appliances the damage which they do ; and as in like manner we inquire patiently into the nature of the diseases that afflict the insane and try to cure them ; so we have now to search and learn whether the evil spirit that is in the wicked man, who in the land of uprightness deals unjustly and will not turn away from his wickedness to learn righteousness and to do justly, is not the legacy of parental or other ancestral error, wrong-doing, misfortune, or vice. When that inquiry has been completed successfully, it is not improbable that the domain of the supernatural in human affairs will be yet further contracted ; but if it be actually extinguished mankind must bear the last great loss patiently, as they have borne the extinction of Mars and Minerva, of the miracle-worker and the astrologer, of the beliefs in witchcraft and in special supernatural interpositions to reverse natural laws. Meanwhile it is worth noting here that the theory of Satanic impulse was based upon a genuine recognition of facts in so far as it admitted a determination of the individual by a stronger power in himself than he could counteract, while it strove hard, ingeniously compromising matters, to save responsibility by ascribing to the individual the indulgence of the evil passions through which

the Devil gained access to the citadel. It is the same old difficulty always coming back upon us in different guises and under different names: what part has determinism, what part freewill, in human doings?

SECTION V.

DISORDERS OF WILL IN MENTAL DERANGEMENT.

It is a trite enough observation that nature does not show anywhere broad lines of demarcation, but makes everywhere easy passage from one class of things to another by gentle gradations, so that between the least things and the greatest a continuity exists throughout. It is we who make separate sciences, in consequence of the constitution of our faculties limiting our channels of apprehension to a few special points of contact with the external: we divide and classify in order to apprehend, making thus a sort of anatomy of nature. But inasmuch as we can only anatomise the dead, and as nature certainly is not dead and dividual but living and unity, we perforce sacrifice or lose much by these enforced divisions. Could we comprehend nature as a whole, which however intelligence co-extensive with it could alone do, the meanest things and the mightiest, the most like and the most unlike, the nearest and the most remote, all things great and small would be perceived to be bound together essentially as elements of one mysterious whole. We should then perceive by an instantaneous intuition how necessary an issue of all the operations and changes of matter on earth from the beginning to now was any present act done there—the very act for example which I perform of writing the word that I write at this moment—and foresee in it all the possible operations of matter in time to come.

Between the most sanely constituted individual, compact of well-balanced moral feeling, understanding and will, and the ill-constituted individual whom all the world is agreed to pronounce mad, there are beings who make a line of human

continuation from the one to the other: mediators they might be called, since a mediator must by virtue of being it share the natures of both the persons or classes between which he mediates. Near the borders of insanity then, yet not actually within them, we meet with persons some of whom it is not easy to classify: persons who in their modes of thought, feeling and will show marked peculiarities or positive eccentricities which make them remarked as unlike the ordinary run of men; who have in fact an insane temperament—that is to say, a temperament of mind which bespeaks descent from a family in which insanity exists, which is itself a predisposition to insanity, and which betrays itself in odd departures from the common standard of social feeling and conduct. With the moral peculiarities go in extreme cases some peculiarities of bodily features and functions, such as ill-shaped or unsymmetrical head, ill-formed or deformed ears, squint, stutterings and stammerings, grotesquely discordant expressions of face—one part of which perhaps looks serious while the rest is wreathed in smiles—extreme grimacings, especially under the influence of excitement, and other nervous distortions of features that occasion dislocations of the ordinary harmonies of expression, and that are of the same nature as the dislocations of the muscular coordinations and of the ordinary associations of ideas; but in many cases there is nothing more noticeable in that respect than a specially marked stamp of physiognomy which has been fashioned by the mood-marking muscles of facial expression. In the lines and play of their features, in fact, and often also in the carriage, attitudes and gestures of body, one sees moulded the predominant traits of their moral character.

Without going into details which, suitable enough in a treatise on mental pathology, would be unsuitable here,¹ we find, when we inquire what are the broad features of this unsoundly leavened mental temperament, that they mark, first, a partial degeneration or at any rate an incomplete sanity of moral feeling, and, secondly, a corresponding impairment or incomplete development of will. That is what

¹ For details of the kind I refer to my treatise on the *Pathology of Mind*.

might perhaps have been foretold; for if a temperament is unsound it is predisposed to degeneracy, and the degeneracy, whether it be into madness or into badness, will be marked by some defect of moral feeling and will. Not that the peculiarity in these persons commonly reaches a depth or takes a character of moral decline which could rightly be termed moral degradation; in many instances it is rather of the nature of a moral eccentricity or a moral discord, while in others it consists in the exaggerated growth of some particular quality of character which, natural in temperate development, in excess becomes vice. Vanity grown to such a height as to lose the restraint of sanity; love of gain developed into an extreme avarice and miserliness; suspicion and distrust of others so excessive as to become a veritable monomania; a mobile impressionability so little ballasted by logic of character or training as to present a perfect exemplar of incoherence of thought and insincerity of feeling;—these and the like egoistic tendencies in hypertrophied growth are the tokens of the deep fault, so to speak, in the moral disposition. The fundamental note of character beneath the excessive growths is an intense and narrow self-regarding egoism: not necessarily a deliberate, conscious selfishness, but an acute self-feeling; a constant and inveterate reference of all impressions to self, which is easily touched to the quick, being what is called very sensitive, as well it may be when all its sensibilities are collected into one sensitive point and that point self; a serene and exacting assumption, of a tacit kind, that what is important to him is or ought to be of equal moment to all the world and a corresponding exacting demand on the services of others, without any sense of obligation or gratitude; a sheer incapacity to conceive the insignificance of self in the economy of the whole and to view it and its relations objectively. The one thing a person of this kind cannot do is to objectify himself—to surmount self by a humorous criticism of self. It is impossible for him to believe, as he gets to the worst, that he and his concerns do not or ought not to fill as large a place in other people's thoughts as they do in his own, who, he may come to persuade himself at last, are thinking or speaking ill of him,

scheming and plotting against him, ridiculing and shunning him, and the like.

These excessive growths of egoism which put the individual out of sound and wholesome relations with his fellows, and so far isolate him, exemplify very well the difficulty of attaining to and maintaining the right equilibrium between a development of individual tendencies and a just regard to the influence of the social medium: too much influenced from without, there is an end of spontaneity and he becomes little more than an automatic piece in the social mechanism; too little influenced from without, individuality is apt to run into an excess which verges on madness in extreme cases, and in all cases lacks the wholesome discipline and support that are got by growth against resistance and are essential to its best development. Vanity is a passion which is of social origin, springing from a love of the admiration or praise of the kind, and so far is a useful force in the social organisation, since it spurs the individual to gain what it pleases his vanity to have; although intensely egoistic in character, it is altruistic in the source of its sanction as an incentive of conduct, and altruistic also in the self-sacrificing energies which it sometimes inspires, since a person may risk what he values most, even life itself, out of an exalted vanity; so it has an intermediate and useful position between the more purely egoistic and the more purely altruistic feelings. Its social significance is well shown by two reflections—first, that the vainest mortal does not look for the admiration of his horse, and, secondly, that his horse does not look for the admiration and flattery of its kind. But vanity, like other egoistic passions, cannot ever obtain its completest gratification if it is too self-regarding; for it then defeats its own end of attracting praise and admiration, and brings on its possessor dispraise, ridicule and contempt. It is a quality which, in order to discharge its function well, must not grow beyond a certain mean; the further it exceeds that measure the further it puts the individual as a social element out of the reach of the controlling, modifying, directing and inspiring influences of the social organisation; until at last he becomes a positive morbid ele-

ment, useless or injurious in it. That we see to be the tendency and foresee to be the probable outcome of the narrow, intense, excessive vanity of the insane temperament. Envy again, another passion of social origin, has an innocent side in so far as it stirs the individual to exertion in order to emulate him whom he envies; but when it is suffered to grow rank and malignant in the mind it corrodes the strength and eats out the goodness of character. So also with regard to the feeling of suspicion, which is a natural function in a complex social state; for it is certain that without it no one would be able to conduct his life successfully in the midst of a crowd of self-regarding elements many of them justly deserving to be suspected. Held in due balance by the sense of surrounding checks and assimilating their influence, it is beneficial; suffered to grow to excess, in disregard of the restraining, consolidating, and strengthening forces of the social medium, it runs into a mania of suspicion that cuts the individual off from communion with his kind, and becomes truly insanity. It is unfortunate that while the virtues of the mean in the general are evident enough, the real difficulty is to find and to keep it in the particular, seeing that it is always relative; the virtue of one social medium being the vice of another, the faith of to-day the fable of to-morrow.

As it has undoubtedly been the effect, we may say that it has been the aim, of the social union of men to facilitate by mutual help the satisfaction of their fundamental or primary wants—that is to say, the food-want, the sexual want, and one may perhaps add the clothing-want; and the condition and effect of such union have necessarily been, as I have already pointed out, a certain repression of the personal or egoistic element, since the individual must needs conform to restraints on his primary passions in order to have the benefits of co-operation and even to render it possible. But a further and more remote effect of the increasing social complexity is to bring the personal element again into active development through the manifold secondary interests, ambitions, passions that are engendered in the complex social state—those social egoisms which are the less crude,

but not less selfish, social developments of the primary passions. Personal gratification no longer seeks or attains its aim in the mere satisfaction of physical wants; it has to seek and attain them in a social medium by social means and in social advantages; and so it is that pure egoism necessarily undergoes social transformations in spite of itself. It appears then that egoistic and altruistic are terms which mark too abrupt a division when they are set over against one another to signify opposite and unrelated passions: for egoism cannot operate in the social sphere to its own advantage except by putting on the form of altruism. Now the constant tendency of the personal element is to inspire and urge to undue gratification these secondary passions that are developed out of the social union. Hence the difficulty, nay the impossibility, of keeping a society pure; hence indeed an inevitable tendency in itself to breed corruption. Selfish devotion to pleasure, eager pursuit of wealth without the least regard to the oppression and misery that the pursuit may entail on others, unworthy ambitions of power and place and the use of unworthy means to attain them, guile and fraud in business, enervating luxury and effeminacy, decadence of public spirit, all the elements of decay that mark the decline of a society and go before its destruction,—these are the outcomes of an excessive egoism in its social developments. Obviously their tendencies are not to social consolidation but to social disruption: without the sentiment of human solidarity intellect and power are selfish and disintegrant. In the social fusion of egoistic energies, however complete, there is always latent a disruptive or explosive disposition, as we may plainly understand there must be if their natural repulsions have been constrained under tremendous pressure to efface themselves in the development of affinities: it is a tendency of them to get free, which gains force rapidly when the surroundings are not favourable to the maintenance of the social solidarity, and which in any case has its way in the end. For a society cannot any more than an individual continue to develop for ever, or for ever continue in one stay.

In its primary forms of crude and simple passions the

necessary repression of egoism was effected only by the awful terrors of superstition and by the most rigorous executive measures on the part of the community to enforce conformity to the tribal or national customs and religions: what is there available to do a like needful work now for the secondary social egoisms when the gods have one after another become extinct and when supernatural terrors have lost nearly all their force? It is a vastly momentous question for modern societies, and they will hardly solve it in the best way by going on as if it will never need to be solved. In any case it will not fail to solve itself, for assuredly the feeling of human solidarity, which is the basis and essence of religion in its true sense, is in the social organism very much what the heart is in the bodily organism: when it ceases to beat there corruption and death begin. In a complex social state the individual has not, it is true, very great power singly to do mischief, be his aim and work never so selfish; if he is to spread his influence, whether baneful or beneficial, widely he must work in combination with others. Hence it is that associations and societies for co-operation in a common work are so many and active in modern communities. Selfish and corrupt men find it necessary or advantageous to unite together in societies or companies in order to make their evil gains at the cost, and oftentimes to the ruin, of the ignorant and the unwary whom they delude and defraud. Persons of the same trade, though competing eagerly against one another, join in the observance of a common trade-morality, which is actually an immorality, being a sanctioned fraudulent combination against the community under the guise of the custom of the trade. Too often the modern commercial company is a signal and sad example of the social union of bad men to extend the area and increase the power of their entirely selfish activity; and the pity of the matter is that the exposure of nefarious schemes that have overwhelmed hundreds in ruin do not overwhelm their authors in infamy. So it is made evident that a complex society breeds in itself the morbid elements which feed on it, flourish in it, and in the end kill it. For it is another evil of the social system of

which such pernicious antisocial elements are bred and in which they flourish, that the wrongdoer mostly goes unpunished; the appeal of his victim to law for redress is frustrated, because the process has been rendered so tedious, troublesome, complex and costly, by the exactions of many personal interests engaged in it, as to make it a less suffering for him to bear wrongs and less repugnant to allow the guilty to go free, than to seek an uncertain redress by that means; more especially when the appeal has to be made to those who are tainted with a sympathy for such commercial enterprises and cannot see the iniquity of them.

If such a society is to be saved from corrupting decay, nothing but a revolution of some kind will save it; further evolution will only be the evolution of further elements of dissolution. The ideal which it worships is a debased and debasing one, not truly an ideal, but in reality an anti-ideal, and it sees it not. The only salvation then lies in a revolution the great and tragic events of which, sweeping away conventionalisms and fusing barren and obsolete forms in its fire, extinguish ruthlessly these social egoisms, and bring men back to the stern realities and radical principles of human association. And it is only from below that such effective uprising, if it comes from within the society, can come. There would appear, however, to be one of three events which may happen to a society in this stage of germinating disruption, as Vico pointed out: either the strong hand of a dictator or Cæsar who, making himself master, holds interests in firm check and gives executive force to the administration of paralysed law; or subjugation by a nation whose strength has not been corrupted by luxury and effeminacy, and which, inferior in so-called civilisation, is yet stronger and better, in so far as it is able to conquer and to govern; or lastly, when despot and conqueror alike fail, civil strife and war arising out of excessive personal interests and weakened social bonds—a return in fact to a waste of barbarism from which at some distant day new life may spring. It is Bacon who makes the apt comparison of such disorganised and expiring commonwealths to ‘the streams of Helicon which being hid under the earth (until the vicissitude of

things passing) break out again, and appear in some other remote nation, though not perhaps in the same climate.'

With societies as with individuals it is not intellect that constitutes character and will save their souls alive: more acute intellect will only be a keener pursuit of selfish aims if there be not beneath it a sound solidarity of social feeling. The mere lust of knowledge is no better in itself than the mere lust of power. It is poor progress to be able to move over the earth at a speed ten times faster than our forefathers, if we lose our forefathers' simple and solid social virtues; no great thing to surpass them in the brilliancy of electric lighting, if we get no better moral illumination. Of all foolish labours that may obtain a record in the history of humanity, when its course on earth is run, should some higher being there ever write the tragical story down, the most ludicrously abortive will be seen to be the attempt to build up a stable nation on a gospel of smartness. Any one who chooses may convince himself that the great revolutions of the world which have been the visible beginnings of new eras of progress did not spring from intellect but from feeling; not fully formed, Minerva-like, from the scheming head, but by slow gestation from the brooding heart, of mankind. When a revolution has been an affair of the understanding it has not been difficult to stop it by cutting off the heads of the few who conspired, but when a revolution has been bred in the hearts of the people it has not been stopped by cutting off their heads. Underneath the surface-waves of national consciousness which show themselves in the traditions, opinions, open feelings, institutions, aims of a people, there are in the deepest fountains of its character a great many latent energies at work; and it is these that pursuing their secret and silent courses in infra-conscious depths really prepare the future and, when their waves are felt on the surface, determine its course. Manifesting their deep pulses here and there from time to time in scattered and disorderly volcanic upheavals which the ignorant ruler, uninspired by them, despises, so making ultimate revolution necessary, but the wise ruler, inspired by them, takes wise account of, so making evolution gradual,—they are the premonitory beats

of a movement that, coming from the brooding heart of society, lies deeper than knowledge, and that knowledge will one day have to reckon with.

As indeed with the individual so it is with humanity as a whole: it is feeling that inspires and stirs its great pulses, the intellect fashioning the moulds into which the feelings shall flow. If you ask then what in time to come is to break to pieces the rampant egoisms of modern society, and to bring men back to the radical principles of human solidarity, seek the answer in a calm and purely scientific examination of such scattered upheavals of the great sub-conscious social forces as take place from time to time in communistic, socialistic, nihilistic, anarchic outbreaks; blind, reckless, wildly visionary, seemingly insensate, it is true, but not therefore meaningless—neither causeless nor without final cause; on the contrary, pregnant with the deepest meaning, being effects of what is in weltering ferment now beneath the surface and forewarnings of what will be, either catastrophically or gradually.¹ There will be a grim experience and a troubled future for the nation that has not known, before that hour comes, how to guide these forces in the right way, and to absorb and embody them in fitting forms of social and political organisation. The French Revolution was momentous enough as an event, but it is perhaps more so as an awful example teaching how silently the great social forces mature, how they explode at last in volcanic fury, if too much or too long repressed, and how terrible and apparently meaningless a desolation they produce. But not meaningless actually; for, as mankind is constituted, human progress is through human society, and these devastating storms are the revenge which the evolutionary *nisus* takes on transgressed laws and at the same time the sweeping remedy which it applies to a rotten social organisation. It is anything but a sign of vigorous health when no such

¹ Are they to be denounced, deplored, violently suppressed as wildly insane, because they appear simply destructive? You might as well denounce, deplore, and violently suppress the destructive break-up of old chemical combinations, because you cannot foretell the new and higher combinations that are eventually to follow.

infra-conscious energies are active in a nation, for it means that the evolutionary impulse in it is exhausted and decadence in progress.

To return from this endeavour to point out the disruptive consequences of excessive antisocial egoisms to the straight path of our inquiry. A society thoroughly pervaded by selfish aims and pursuits may, like an individual moved by predominant egoisms, go on—the former for several generations, the latter perhaps for a lifetime—without showing any further tokens of degeneracy; whereupon the passing observer remarks only how well the wicked flourish. But let him pass by in succeeding generations and things shall not, perhaps, wear so flourishing an aspect. The antisocial conditions of one generation predetermine the social disintegrations of following generations, and the antisocial egoistic development of the individual predisposes to, if it does not predetermine, the mental degeneracy of his progeny; he, alien from his kind by excessive egoisms, determines an alienation of mind in them. If I may trust in that matter my observations, I know no one who is more likely to breed insanity in his offspring than the intensely narrow, self-sensitive, suspicious, distrustful, deceitful and self-deceiving individual who never comes into sincere and sound relations with men and things, who is incapable by nature and habit of genuinely healthy communion either with himself or with his kind. A moral development of that sort is more likely, I believe, to predetermine insanity in the next generation than are many forms of actual mental derangement in parents; for the whole moral nature is essentially infected, and that goes deeper down, and is more dangerous, *quâ* heredity, than a particular derangement: a mental alienation is the natural pathological evolution of it. Once more, then, we perceive how deterioration of moral feeling proves itself to be an initial mark of degeneracy, by the distinct mental degeneracy which it produces when it has free course.

It goes without saying that the best will cannot coexist with such unsound moral dispositions as I have described under the name of insane temperament. True it is that they present sometimes that thin, shrill, eager, intense will

which, inspired by passion, is a sort of spasmodic self-will, but we do not observe that calm, full, strong, free will which comes of large and true appreciation of external relations and of just co-ordination of thoughts, feelings, and desires. Moreover, we meet sometimes with most remarkable instances of singular impotencies and perversions of will among persons who have this insane temperament. A thought of a painful kind or an impulse to do some absurd or wrong act arises in the mind and keeps its footing there, despite the most earnest desire to get rid of it; thrust into the background for a moment by the urgent call of present interests or duties, it returns again and again to the front at the first chance, getting at last such a hold of the mind that the alarmed individual, who feels himself demoniacally possessed by it, is brought to a state of extreme horror and distress. Ludicrous as the tale of his sufferings seems in the telling of it, even to himself, it causes an unrest and anguish of mind which are far from being ludicrous; for the sense of having lost hold of himself, of being at the mercy of an internal impulse which is not himself, the alarming apprehension that he may in an unguarded moment some day yield to an instigation which it costs him all his strength of watchful will to withstand, the awful feeling of a disruption of self and the appalling dissolution of self-confidence that accompanies it,—these produce an abiding distress and at times an indescribable despair. Even when the idea or impulse is in momentary abeyance, present enjoyment is hindered and the pleasure of hope frustrated by the overhanging dread of its recurrence.

Here then we are presented with a very remarkable disintegration of will in one who is certainly not insane in the sense of having lost his reason, seeing that he is clearly conscious of the nature of his affliction and able to reason quite as justly about it as any one need be, but who is not sane in the sense of having a sound and compact union of well-balanced nerve-centres as the basis of his mental organisation, and the consequent power over himself which would come of such a union. This native weakness, the outcome of which is a divided will—a dread of willing in obedience to

a rebellious impulse of self that which the larger and truer self would not will—is with him a matter of inheritance mainly, but a similar condition of nervous system is sometimes brought about by special nerve-enervating causes. Whatever be the intimate and hidden molecular conditions, it is plain that the bonds of association between the different nervous centres that together constitute the mental organisation are so weakened as no longer to exert the inhibitive influence necessary to keep them in their natural equilibrium and make them act together in perfect unison. The result is much like that which befalls when a particular muscle or a set of muscles in a physiological group or series betakes itself, in consequence of disorder of the proper nerve-centres, to independent action against a person's will and occasions the sort of mutinous movement we call choreic: it is a kind of St. Vitus's dance of the idea or impulse. The movement is perhaps distressing to him in the highest degree, but he cannot hinder it; the more he tries to do so, and the more he thinks about it, the worse it is. There is a functional dissolution of the mental organisation, a disruption of the solidarity of its associated centres, the consequence of which is a decomposition or disintegration of will. For the will means, as I have already shown, the conscious expression of the co-ordination of mental functions working to an end: that co-ordination imperfect, will is imperfect; impaired, will is impaired; exact and complete, will reaches its highest quality and energy, its highest functional expression, in the particular person. Disruption of co-ordination is decomposition of will; decomposition of will is dissolution of self; dissolution of self before it is so great as to entail the actual loss of normal consciousness—that is to say, when it is impending and forefelt rather than actual and present—is accompanied by the most alarming shock to self-confidence.

So much then concerning the special features of that unsoundly tempered character which, stopping short of actual insanity, is yet, as it were, the premonition of it. Its peculiarity being a native deficiency of mental co-ordination and a consequent tendency to separate and inco-ordinate

action of parts—a *neurosis spasmodica*, as I have elsewhere described it, which translates itself in consciousness as a convulsive *psychosis*—as distempered moral feeling and dismembered will—it is obvious that any enervating cause reducing still lower the natural energy of such a mental organisation will easily occasion those more serious disorders of function which are recognised as positive mental derangement. There is no reserve power in the background available to counterbalance the exhausting conditions, and the degeneracy runs quickly down to complete anarchy. Herein we may discern the explanation of three events which claim notice in the clinical history of hereditary madness: the first is the ease and rapidity with which the malady passes from its beginnings into a display of extreme incoherence; the second is the like rapidity with which recovery takes place sometimes from an extreme and almost hopeless looking incoherence, an equilibrium easily upset being easily restored; and the third is the rapidity with which, when recovery does not take place, the disease runs down into an extreme and hopeless dementia—the easily induced functional disorder of the first event lapsing quickly into the organic deterioration of the last event. The essentially weak or unstable constitution either of nerve-element itself or of the organised association of nerve-centres, or of both—the first being perhaps a main condition of the production of the second—in persons who have a strong hereditary predisposition to madness is shown furthermore by the fact that a similar condition of things, betraying itself by similar symptoms, is produced sometimes by active nerve-exhausting causes in persons who have not up to that time shown any noticeable signs of such a predisposition.

The briefest survey of the main features of the leading forms of mental derangement is enough to show that a loss of power over the thoughts, feelings, and acts is an essential fact of the anarchy. Not that the afflicted person is himself distressed usually by this failure of will, or even so much as aware of it; on the contrary, so far from being unhappy is he that oftentimes he is jubilant in the exulting consciousness of a glorious power of intellect and of a freedom

of will which he never experienced before. However, if we, distrusting this exultant declaration of self-consciousness, set ourselves to watch him attentively, we soon perceive that it is innocently playing a gross deception on him; it is the true witness to an exuberant activity of a sort, but by no means a competent witness to the quality of the activity, for it is inevitably suborned to testify directly as it is directly inspired. Before he has actually fallen into mania, indeed while he is displaying the premaniacal semblance of mental brilliancy that is often so signal a feature of the beginning of the attack, it is plain that thoughts and feelings surge up in his mind in an irregular and tumultuous fashion, and impel him to strange and disorderly acts. There is manifest an extraordinary mobility of ideas and feelings for a short time before the stage of actual incoherence is reached: instant, abrupt, and rapid transitions from subject to subject without a following up of the natural affinities or sequences of any subject; no restrained excitation of the proper accessory ideas, supplemental or complementary, to complete the grasp of the perception or of the conception, which therefore is only partially formed in the mind, but instant and promiscuous excitation and discharge of ideational centres or tracks that receive and react with amazing rapidity; a corresponding instability of moods shown by quick and abrupt transitions through the gamut of feeling from expansive amity and effusive cordiality to angry suspicion and menace without any external provocation; a restless change of movements answering in some measure to the rapid changes of ideas and moods. Obviously the natural inter-restraints or inhibitions of the mental nerve-centres have been impaired or abolished; instead of one of them when stirred to function being held in due balance by another that would naturally offer such a resistance, the effect seems to be a quick and easy inter-stimulation, not perhaps unlike that which persons exert upon one another in a crowd inflamed by fear, fury, or fanaticism. Instantaneous makings and breakings of thought-circuits, and the makings, no sooner made than unmade, of all sorts of accidental connections, are the order, or rather disorder, of events. We may conclude that the

symptoms mark two stages of degeneration, though at bottom perhaps these are degrees of the same process: first, an excitation of nerve-element whereby the sensitivity of the centres and the conductivity of the inter-connecting paths are extraordinarily increased, so that quick, varied and transient associations of flashing ideas, often only half complete, give a momentary semblance of mental brilliancy; and, secondly, as the disorder increases, a further impairment of the natural stability of the associated centres, so that disturbance of equilibrium passes readily and quickly from one to another without meeting with any resistance, and there ensues a general and tumultuous incoherence. Here, if we consider it, appears the truth of the old saying that anger is a short madness, especially in those persons whose ideational centres have naturally quick sensibilities and little inhibitoryities, if I may coin such an uncouth word; for in that respect it is certain that there exist very great constitutional differences, in one person any outbreak of anger being an actual incoherence, while another is hardly ever transported out of himself by rage, although in most persons a furious passion is more or less incoherent.

It is curious and instructive to watch the struggle which is taking place sometimes in the mind at the beginning of acute mania, before the undermined will is completely shattered. We may observe the patient succeed by a manifest effort in bringing himself under its control for a few moments when he is aware that some one is watching him, or when he is spoken with or sharply remonstrated with; collecting himself on the instant he speaks and acts in a calm, measured, and coherent style, as if after grave deliberation, although he is under an evident strain; but it is an over-strain that he cannot keep up, for the enfeebled will soon lets go the reins and he relapses into a turmoil of incoherent thought, speech, and conduct, becoming, as the disease makes progress, incapable of a moment's real self-control. In saying that the will lets go the reins, I employ a metaphorical expression that properly befits the abstract psychologist only; what is concretely meant is that the increase of the inco-ordinate and separate action

of the supreme centres is the deepening disintegration of will.

Take another variety of madness: the person who is suffering from that deep morbid gloom of mind which is called melancholia—a gross exaggeration of ordinary melancholy, as mania is a gross exaggeration of ordinary anger—finds perhaps some painful thought, blasphemous, obscene, or otherwise afflicting, come into his mind against his earnest wish, causing him unspeakable distress, and hold its ground there in spite of all the efforts of an agitated and enfeebled will to expel it; so hateful an intruder is it, so alien to his feelings, so repugnant to him, so independent of his true self, that, unable to account for it naturally, he ends perhaps by ascribing it to the direct inspiration of Satan, to whom he believes himself abandoned because of the enormity of his sins. Or he may be afflicted with a frequently up-starting impulse to do harm to himself or to others, conscious all the while of the horrible nature of the impulse which he resists with frenzied energy, and going through agonies of distress during the paroxysms of its activity, and the struggles that he makes to prevent his true will being overmastered by it.

The monomaniac broods over some idea of greatness or of suspicion, rooted in its congenial feeling of vanity or suspicion and drawing to itself the sympathetic nourishment of like-kindred ideas and feelings, until the weakened will loses restraining hold of it, and it grows to the height of an insane delusion. It is an instance of the disruption of the solidarity of the mental nerve-centres: first, by a concentrated or predominant function of one group of them, and subsequently by an excessive development or hypertrophy of that group, so to speak; and with these conditions goes a corresponding breach of the integrity of will, functional and remediable in the first, organic and for the most part irremediable in the second, event. Here again it is curious and interesting to watch the alternating predominance of the true and the insane self at the outset of the degeneracy, according as the individual is or is not under the sway of his delusion, and the sort of struggle for existence that is going on between

them ; in the good event of recovery the sane self gradually gains the day and he emerges into clear consciousness ; in the bad event of deterioration, the insane self carries the day, and he imagines himself, if of optimistic temperament, prophet, king or other great personage, or believes, if pessimistic, that the whole world is in a conspiracy against him. Whatever the event, it is an example of the survival of the fittest : the fixed delusion is the fit pathological development of the naturally weak and vain temperament which withdraws from the discipline of facts into an unwholesome indulgence of egoisms ; the return to sanity is the proper self-assertion of a stronger and sounder natural temperament which is capable of coming into wholesome relations with its surroundings. Were I called upon to compress into one short precept the essence of the best rules to be observed in order to prevent the development of such an insanity, I should be tempted to say to the individual, Learn to think yourself no less a fool than anybody whom you think a fool.

Everywhere then we observe impaired will to mark the beginnings of mental derangement, and effaced will to mark its last and worst stages. For when we contemplate the sad spectacle of its last term, as we are confronted with it in the utterly demented person in whom all traces of mind are well-nigh extinguished, who must be fed, washed, dressed by others, cared for in every way, being incapable of any care of himself, whose life is little more than a mere vegetative existence, we see plainly a complete abolition of rational will go along with the complete mental disorganisation. Is there behind this degraded matter, and struggling in vain to utter itself, a soul of the same substance and quality as that of the philosopher ?

SECTION VI.

THE DISINTEGRATIONS OF THE 'EGO.'

A DILIGENT study of the facts of mental pathology would do the pure psychologist a real service, if it moved him to obtain and frame for himself some kind of notion of the material conditions of things which he concedes to run parallel with the divers will-energies, albeit he might continue to uphold the self-sufficingness of his introspective method. Why not resolve to have a definite mental representation of the two invariably and essentially parallel processes, when he has occasion to think of either? It would be an excellent check on vagueness of thought and expression, for it would help him to feel that he has a definite meaning in the abstract and somewhat empty psychological terms which he uses so freely, and to make others feel it, and would perhaps render his use of them a little more deliberate, exact, and sparing. Nor would it be amiss by way of gaining a conception of the nature of the mental organisation, and of the expression of its co-ordinate functions in will, to reflect at the same time on the solidarity that exists between the various parts of a complex State, ideally well ordered and well governed, whereby the executive action is the full and faithful representation of all interests in their due subordinations and co-ordinations; or, if he likes better to go down to the physiological organism than upwards to the social organism for a helpful illustration, let him consider the wonderful sympathy and synergy of organs there, and ask himself if they would do their work so well had they the disturbing gift of consciousness. This in any case he should not fail to apprehend: that in that exquisitely fine and intricately complex organisation which is the physical basis of mind every interest of the entire body, every organic energy, has direct or indirect representation: there is nothing in the outermost that is not, so to speak, represented in the innermost. Not one organ but all organs, not one structure but all structures, not one movement but all movements, not one

feeling but all feelings; all vibrations of energy, of what sort soever, from all parts of the body, the nearest and the most remote, the meanest and most noble, conscious and infra-conscious;—stream into the unifying centre and make their felt or unfelt contributions to the outcome of conscious function. The brain is the central organ of the bodily synthesis, sympathy, and synergy, and the will at its best the supreme expression of that unity. Therefore, it is that in will is contained character: not character of mind only, as commonly understood, but the character of every organ of the body, the consentient functions of which enter into the full expression of individuality.

That being so, it is made evident that disorganisation of the union of the supreme cerebral centres must be a more or less dissolution of the conscious self, the *ego*, according to the depth of the damage to the physiological unity. Even if any one organ of the body be defective, it is a breach in the supreme unity of consciousness, for it is a deprivation to the extent of its deficient energy, and a disturbance to the degree that its work is thrown upon other organs: it is like a horse in a team that does not do its exact share of the work uniformly. The constant feeling of personal identity on which metaphysicians lay so much stress as a fundamental intuition of consciousness, discerning in it the incontestable touch and proof of a spiritual *ego* which they cannot get into actual contact with in any other way, may be expected to be sometimes wavering and uncertain, in other cases divided and discordant, and in extreme cases extinguished. But that is a dismayful expectation to entertain concerning the 'I,' the '*ego*'—the *ens unum et semper cognitum in omnibus notitiis*—of which they thus protest we have more or less clear consciousness in every exercise of intelligence. Look frankly then at the facts and see what conclusion they warrant. Is there the least sign of a consciousness of his *ego* in the senseless, speechless, howling, slaving, dirty, defenceless, and utterly helpless idiot, whose defective cerebral centres are incapable of responding to such weak and imperfect impressions as his dull senses are able to convey, and incapable of any association of the few, dim and

vague impressions that he does receive? No doubt his body, so long as it holds together by the ministering care of others, may be said to be an *ego* or self; but from the human standpoint what a self! It is not a mental *ego*, since the central organic mechanism in which the lower bodily energies should obtain higher representation, and mental organisation take place—the before-mentioned synthesis, sympathy, and synergy be effected—is either altogether wanting or hopelessly ill constructed. The miserable specimen of degeneracy does not and cannot therefore in the least know that he is a self, or feel that a human self is degraded in him. If the sure and certain proof of a soul existing independent of the organism, and the thereupon based sure and certain hope of a resurrection to life eternal, be the distinct and permanent consciousness of identity amongst all changes and chances of mortal structure, it is certainly a mighty pity that the proof should fail us in the very case in which its certitude is most needed, would be most consoling and assuring, and its success most triumphant.

While the idiot yields us a signal example of the deprivation of a consciousness of self the records of mental pathology yield abundant examples of its derangements or depravations. What shall be said of the mean person born in a garret and bred in a kitchen who has never gone beyond the dreary routine of the basest manual labour, and who nevertheless believes and declares himself to be king of England or the Saviour of the world? It will be said perhaps that after all he has not lost consciousness of self, seeing that he is conscious he is a self, albeit he has a wrong notion of the self which he is. Certainly he is likely, so long as his body keeps its unity of being, to be conscious of being that unity; but it is plainly nonsense to say that he has a distinct, ever-present, intuitive consciousness of personal identity when he cannot identify himself. The curious thing is that this great personage, after he has found his way into a lunatic asylum, sometimes settles down there into a quiet and monotonous routine, doing the humble work set him to do as if he were quite a common person, and accepting the attentions of his lowborn relatives when they visit

him; not failing, however, to assert his pretensions whenever reference is made to them, and becoming angry and excited when they are called in question, ridiculed, or denied. In practice, so long as he thinks not of himself, he is his true self; in thought, so soon as he thinks of himself, he is his untrue self. He presents a double or divided personality: his true one representing the habits of his automatic being and the more stable functions of his lower nervous centres, which he exhibits in his capacity of routine-worker doing mechanically what he is set to do; his other and not true self, which he exhibits when he reflects on himself and asserts his pretensions, representing the less fixed and now deranged functions of his supreme nerve-centres, especially of that group of them which is the basis of his deluded thought. Thus he has lost what was his last human gain—his consciousness of true moral identity; he has retained consciousness of his personality as an eating, drinking, and labour-performing organic machine. No wonder that his conduct exhibits a gross inconsistency, and stirs a sort of doubt or suspicion whether he really believes himself to be the great person he claims to be, when his mental nature is thus divided into two dissentient parts that act independently, and cannot be brought into consentient function. As when an organism has become the seat of a serious morbid growth which increases at its expense and to its detriment, yet lives its own life apart from it, it can no longer be said to have a true physiological unity, but actually embodies in itself two different and hostile unities; so with the mind in which a morbid delusion has grown to such a height as to impose itself upon the judgment, and, taking no part in normal thought, lives its own life apart, there is no longer unity but division of the personality or self—a pathological unity developed within the natural physiological one. The metaphysical assertion that the *ego* has not extension and is not divisible is then confronted with two weighty objections: first, that it is impossible for extended beings to form a mental representation or even so much as a definite conception of an entity of that nature, and, secondly, that it is directly opposed to plain facts of observation.

The truth is that the manifold varieties of mental derangement yield examples of all degrees of lessening brightness of the consciousness of self down to its actual extinction, and of all sorts of derangement and confusion of it from the least unto the worst distraction. Always the difficulty in a particular case is to know exactly what the defect or confusion is, since it is not possible to enter into another person's mind, to realise his state of consciousness, and in that way to measure and appreciate its exact degree and quality. The tendency is inevitable to misinterpret facts, because it is to interpret them by the light and according to the standard of a sound consciousness; and that is a mode of interpretation which may be quite as wrong as it would be to judge the defective sense of the colour-blind person by the colour-sense of one who is sensible to all the varieties and intensities of colour. The latter finds it hard to realise in the first instance, and if he be an ignorant person can hardly be made to realise, that any one has that defect, because it is so contrary to his own experience, and his preoccupied mind is not open to receive the plain evidence of facts. So it is with the sundry and divers defects and abnormalities of consciousness met with in the different varieties of mental derangement; the railing judge denounces the insane criminal whom he sentences to death, just as if they both had the same sane consciousness, and he, abandoned wretch, had wickedly violated it for the selfish pleasure of doing murder; and the introspective psychologist bases his entire philosophy upon a method which assumes the self-sufficingness of his individual consciousness. Meanwhile it requires a long and patient observation of instances, for which there is for the most part neither the opportunity, nor the inclination, nor the training, to correct these errors of assumption and to infix in the mind just conceptions of the variety of obscurations, eclipses, and distractions to which consciousness is liable.

How many patient observations and experiments, and how much steadfast insistence, on the part of the physiologist were required to prove to the introspective psychologist, measuring all human actions by a standard of consciousness,

that there was a class of movements which, having a purposive form and constituting a large part of daily conduct, were nevertheless strictly automatic, being performed without will and in some instances without consciousness. Even now his recognition of them is not much better than a lip-acknowledgment, and he rather annexes them as a foreign appendage to his philosophy, than assimilates and incorporates them into its substance. Consider it well, and it will be seen that in the formation, nature, and purpose-effecting work of a complex reflex act there are all the elements of that which when consciousness goes with it—as it does in the functions of the highest nerve-centres—we call knowledge: reception and reaction, registration of experience, association of registered experiences, adaptation of means to end, and definite action in accordance with these anterior operations—in fact, incorporate knowledge, reason made substance. For what are these purely bodily operations at bottom but processes which, when they take place consciously, we describe as feeling, retention or memory, apprehension, judgment, belief and will? An agile person who is accustomed to cross a busy street quickly, darting in and out among the vehicles with which it is crowded, performs a dozen acts of judgment in as many seconds on each occasion, without being conscious of them. Let him deliberate about the several decisions which he makes and he will most likely be knocked down and run over. For the relations of his quick and apt movements are not to the conscious *ego*, of which they are well-nigh independent in direct aim as in function, but essentially to the preservation and maintenance of the organic *ego*. The mind has little, if any, more to do immediately with them than it has to do with the short flight that a hen makes after its head has been chopped off. It will probably be a long time yet before the full meaning of this physiological fact is realised, and the conception applied to the bodily operations of the same kind which, because they are illumined by consciousness, are deemed to mark a new order of being and called mental, and before, therefore, clear and exact notions are obtained of what the body can do by itself and of the part which con-

sciousness truly has in mental function. Probably it will be a still harder matter to convince the psychologist of the derangements and distractions which the consciousness of self actually undergoes in disease, since they are entirely opposed to his mental preoccupations, and the domain of them lies altogether away from his observation. Contradictory instances that discredit the very basal principle of his method, it is more easy and natural to pass them by without consideration as morbid and irrelevant, than to make an unwelcome study of them.

It is a common event in one sort of mental disorder, especially at the beginning of it, for the person to complain that he is completely and painfully changed; that he is no longer himself, but feels himself unutterably strange; and that things around him, though wearing their usual aspect, yet somehow seem quite different. I am so changed that I feel as if I were not myself but another person; although I know it is an illusion, it is an illusion which I cannot shake off; all things appear strange to me and I cannot properly apprehend them even though they are really familiar; they look a long way off and more like the figures of a dream than realities, and indeed it is just as if I were in a dream and my will paralysed. It is impossible to describe the feeling of unreality that I have about everything; I assure myself over and over again that I am myself, but still I cannot make impressions take their proper hold of me, and come into fit relations of familiarity with my true self; between my present self and my past self it seems as if an eternity of time and an infinity of space were interposed; the suffering that I endure is indescribable:—such is the kind of language by which these persons endeavour to express the profound change in themselves which they feel only too painfully but cannot describe adequately. An observer of little experience, or one who has made little good use of his experience, judging these complaints by a self-inspective standard, is sure to think that the distress and impotence are largely fanciful or at any rate much overstated, and that they might be got rid of if the will could be stirred to proper efforts; not able to realise in his own experience such an extraor-

dinary mental state, he cannot enter into real sympathy with it or believe thoroughly in it. But if he has never had the delirium of a fever to give him practical experience of strange conscious states and to confound and alarm him with the most singular distractions of self, let him call to mind what has doubtless happened to himself more than once when he has been awakened suddenly out of sleep and been helplessly unable for a few moments to realise who he was or where he was or whether he was at all, although seeing around him the usual objects, cognising but not recognising them, hearing words distinctly but apprehending them not; let him then imagine this brief and passing phase of consciousness to persist, and to be his ordinary mental state; and he will in that way obtain far juster notions of the extraordinary states of abnormal consciousness than he will ever get by the sharpest and most skilful inspection of its ordinary states.

The interpretation one may guess to be something of this kind. When the sleeper wakes in a sudden start out of a deep sleep or in the midst of a dream, the impressions made upon the senses from without, though he is dimly conscious of them, do not strike an accordant chime of the corresponding idea-centres, and therefore no perception takes place, the mind is a blank—the senses in fact are awake before their perceptive centres. As these, however, awaken in instant succession from their torpor, he becomes more clearly conscious, the mind less blank but more confused, because external impressions begin now to strike some partial and wavering accordances with the partially awakened ideas and their associations; the result being a sort of half-consciousness of self, or rather a dim consciousness of a distracted or half-self. At last the whole mental organisation recovers its full functions, the internally organised percepts accord completely with their fitting external impressions and are in free relations with one another, and he is himself again recognising distinctly everything about him. So it is with the deranged and partially deranged mind. In consequence perhaps of some intimate disorder of the nerve-elements of the brain, but at any rate in consequence of the interruption of the bonds of association between the functionally grouped

centres whereby they combine in each percept and, at a higher level of abstraction, in each concept, the individual is cut off from his natural hold of external realities, cannot make circuit with them, so to speak, and they therefore seem to be removed to a greater distance or wear a strange aspect of unfamiliarity; the dull and dim sensations that he has from them cannot be brought into full, close, and exact relations with the past organised constituents of the *ego*. These his perceptions and conceptions of the external world as he has learned by experience to perceive and conceive it do not, because of the disorder of their mental organisation, supply the fitting interpretation of the signs or language of sense through which objects appeal to it; 'tis just as if he were being addressed in foreign language only partially understood by him; and accordingly the impressions made upon the senses by his surroundings, not being thoroughly recognised and adequately interpreted by the excitation of their accordant percepts, are not felt and known as familiar, not truly realised, seem not in fact to be his.

Is it not as if the cerebral molecules had undergone a sort of half-turn or dislocation—some polar displacement perhaps—and were fixed there, and so could come only into partial relations with one another? Manifestly were that to take place between the molecules it would entail a corresponding dissociation of the functionally grouped centres, an event which for that or some other reason has certainly taken place. The supposition, fanciful as it is, of a temporary polar dislocation of the molecules, accords at any rate with the singularly sudden and complete way in which the whole trouble vanishes sometimes, the person who is at one moment sunk in the deepest apathy and gloom bounding almost instantly into an opposite state of brisk and joyous energy. 'With one bound the depression vanished,' wrote a lady who had been for two or three months in a profound apathy of mental prostration. 'It always goes in that way. Last night I could have maintained that some abscess broke in my brain. It was like the bursting of a dyke: no pain, but something seemed to give way.' In this relation there are two simple observations that seem fitted to teach something concerning

the mystery of personal identity: the first is, that a foreign body—an artificial tooth, for example—which is in constant sensory contact with a part of the body becomes in feeling a part of it; and the second is, that a paralysed or much numbed part of the body becomes in feeling apart from it, in fact, a foreign body. Thus then an artificial tooth, after it has become a habit of the body, is positively a truer part of the conscious *ego* than a paralysed finger. If you do not get the impressions from without, the world of experience in its modes as you have perceived and thought it habitually, into fitting contact with your organised perceptions and conceptions within, so that they are in unison, it is a strange world to you or you are strange to it—that is to say, an estranged or alienated self. Severed from the surroundings, physical and social, to which, in which, and through which the individual has grown and lived, he is virtually not himself. There could be no intuition of the *ego* without a complementary or correlative *non-ego*, no social individual being without a social medium.

An interesting and very striking example of changed personal identity is furnished by a form of mental derangement which, as it revolves regularly through two alternating and opposite phases, was called by French writers circular insanity, but is better called alternating insanity. An attack of much mental excitement with great elation of thought, feeling, and conduct is followed by an opposite dark phase of depression, gloom, and apathy, each state lasting for weeks or months, and the usual succession of them recurring from time to time after longer or shorter intervals of sanity. Between the two states the contrast is as striking as could well be imagined: in the one the person is elated, exultant, self-confident, boastful and overflowing with energy; talks freely of private matters which he would never have mentioned in his sound state, and familiarly with those above and below him in station whom, when himself, he would not have thought of addressing; in like manner writes many and long letters full of details of opinions, affairs, and plans, to persons with whom he has a slight acquaintance only; spends money recklessly, though not reckless in that way by

natural disposition; projects bold and sometimes wild schemes of adventure; is ready and pleased to harangue in public who never made a public speech before; is careless of social proprieties and even disregards moral reticences and restraints; listens to prudential advice but heeds it not, being inspired with an extraordinary feeling of well-being, of intellectual power, of unfettered thought and will. An actual disruption of the *ego* there is not, but there is an extraordinary exaltation of it, in fact an extreme moral rather than an intellectual alienation. The condition of things is much like that which goes before an ordinary outbreak of acute mania, when there is great mental exaltation without actual incoherence, alienation of character without alienation of intelligence, but it is not, like it, followed by turbulent degeneracy; for when the excitement passes off there supervenes the second phase, that of extreme mental despondency and moral prostration.

How changed the person now from what he was! As self-distrustful as before he was self-sufficient; as retiring as before he was obtrusive; as shy and silent as before he was loud and talkative; as diffident as before he was boastful; as impotent to think and act as before he was eager and energetic to plan and to do; as entirely oppressed with a dominating sense of mental and bodily incapacity as before he was possessed with an exultant feeling of exalted powers. To all intents and purposes he is a different person, another *ego*, at any rate so far as consciousness is concerned—subjectively though not objectively—since in all relations he feels, thinks, and acts quite differently. Not less marked than the mental transformation is the accompanying veritable bodily transfiguration in some cases; for during the exaltation there is a general animation of the bodily functions which makes the individual look, as he feels, years younger. The skin is more fresh and soft, its wrinkles are smoothened, the eyes bright, eager, and animated, the hair less grey than it perhaps was, the pulse more vigorous, the digestion stronger, the activity increased tenfold, and one who had ceased to be after the manner of women may become so again. During the sequent prostra-

tion the contrast is so great that he would hardly be known to be the same person by one who knew him only slightly ; for every one of the foregoing signs of youth and vigour has given place to as marked a sign of age and want of vigour. In the one state he is as if he had drunk a draught of the elixir of life, in the other as if he had foretasted the apathy of death.

An interesting fact which cannot fail to attract attention is that during the exalted state of this alternating derangement the person does with almost exact automatic repetition the things that he did, and has the thoughts and feelings that he had, in former exalted states, and during the prostrate state that he thinks, feels and does exactly as he did in former prostrate states. In the one state, however, he has not a clear and exact remembrance of the events of the other ; not probably that he forgets them entirely, but that he has only that sort of vague, hazy and incomplete remembrance which one has oftentimes of the events of a dream, or that a drunken man has, when sober, of his drunken feelings and doings. How indeed could he remember them clearly, since it is plain he would be compelled, in order to do so, to reproduce exactly in himself the one state when he was actually in the other ? It is impossible therefore he should realise sincerely the experiences of the one during the other, though he may know as a matter of fact that they occurred to him, and, feeling some shame for what he remembers, and misgivings concerning what he does not remember, be unwilling to recall them and speak of them.

Nearly related to these cases, and probably belonging to the same category, are the examples of so-called double consciousness that have lately attracted psychological attention ; notably a case described by Dr. Azam, of which great notice has been taken, though there was no special novelty in it. The mental disorder of a hysterical woman revolved through two quite different abnormal phases alternately : from her normal state when she was serious, sober, reserved, industrious, she passed, after an interval of sleep and loss of consciousness, into an abnormal state, when she was gay, talkative, imaginative, turbulent and coquettish, remember-

ing then her former similar states and also her normal life. In due course this lively condition was followed by an extreme torpor of mind and body, from which she returned gradually to her natural self; and in this her normal state she is said to have entirely forgotten everything that passed during the abnormal states, albeit remembering the events of her proper life—that is to say, remembering her experiences when she was her true self; not remembering her thoughts, feelings, and doings when she was not herself, but another self. As she advanced in years, the normal states became shorter and rarer, the abnormal longer, and the transitions from the one to the other almost instantaneous. These are the usual features of the recurrent mental exaltations and torpid depressions that characterise alternating insanity; and it is the common order of events in such cases for the lucid intervals to become shorter, rarer and less complete, until the disease takes a continuous course with periodically changing phases. One may doubt perhaps whether all the events of her abnormal states were as clean swept from the memory as the reporter of the case assumes, since those who suffer as she did, having a dull, painful, and at the same time confused consciousness of having done and said foolish things during their states of excited alienation, will say they forget them rather than attempt to bring back to their minds what they would gladly forget and willingly be thought to have forgotten. The natural self, ashamed of the abnormal self, is unwilling as it is certainly in great measure unable to identify itself with it, confessing however by this very sense of shame a vague consciousness of identity.

It admits of no doubt that there are states of deranged consciousness in which things are done that are not remembered in the least when the person comes to his true self, just as there are dreams that are not remembered: in the so-called hypnotic or mesmeric state, for example, and in some remarkable varieties of epilepsy, with which the phenomena of somnambulism in some respects and the paroxysms of recurrent mania in other respects exhibit suggestive affinities. There is an epilepsy of consciousness, so to speak, which has no more true relation to the normal consciousness

of the individual than the epileptic convulsions to his natural movements, or than the convulsive frenzy of people in a panic when a crowded theatre takes fire to their normal mental states. Ask one who has gone through such an excited experience to describe to you what he saw, felt, and thought during it, and you will learn how little a person may remember immediately afterwards of that which he was acutely conscious of at the time. After a genuine epileptic seizure certainly, sometimes perhaps before it, sometimes in its stead, the individual will go through a series of acts in a more or less methodical way, as if he were conscious of what he was doing; and there is no one who, observing him, would not say he was; and yet, when he comes to his true self, he shall have no more remembrance of what he did than the somnambulist has of his doings in the night. It is a hard matter then for those who see him act with so much purpose and coherence, and consider the method shown in his behaviour, to be persuaded that he knew not what he did; but assuredly if he is conscious at the time, he forgets immediately afterwards (how help it if he cannot produce at will the exact recurrence of his abnormal state⁹); and though his acts may have evinced something of the form of his habits, they were not the outcome of his true self, not what he would have done had he been in possession of his normal consciousness. To make the normal self responsible for them would be just as if one were to make a person responsible for the imagined deeds of his dreams; in which case everybody would have to be hanged. Indeed it is dream-life that is best fitted to give us a just conception of the nature of these abnormal states of consciousness, since we cannot enter into them from the data of a sound consciousness, and of the partial, confused, uncertain memories, or of the complete oblivion, of them after they are gone.

In spite, then, of aught which psychological theory appealing to its own internal oracle may urge to the contrary, it is incontestably proved by observation of instances that there are states of disordered consciousness which, being quite unlike states of normal consciousness, are not to

be measured by them, and the events of which may be remembered only dimly, hazily felt rather than remembered, or completely forgotten. The lesson of them is the lesson which has been enforced over and over again on physiological grounds—namely, that the consciousness of self, the unity of the *ego*, is a consequence, not a cause; the expression of a full and harmonious function of the aggregate of differentiated mind-centres, not a mysterious metaphysical entity lying behind function and inspiring and guiding it; a subjective synthesis or unity based upon the objective synthesis or unity of the organism. As such, it may be obscured, deranged, divided, apparently transformed. For every breach of the unity of the united centres is a breach of it: subtract any one centre from the intimate physiological co-operation, the self is *pro tanto* weakened or mutilated; obstruct or derange the conducting function of the associating bonds between the various centres, so that they are dissociated or disunited, the self loses in corresponding degree its sense of continuity and unity; stimulate one or two centres or groups of centres to a morbid hypertrophy so that they absorb to them most of the mental nourishment and keep up a predominant and almost exclusive function, the personality appears to be transformed; strip off a whole layer of the highest centres—that highest super-ordinate organisation of them that ministers to abstract reasoning and moral feeling—you reduce man to the condition of one of the higher animals; take away all the supreme centres, you bring him to the state of a simply sentient creature; remove the centres of sense, you reduce him to a bare vegetative existence when, like a cabbage, he has an objective but no subjective *ego*. These are the conclusions which we are compelled to form when, not blinking facts, we observe nature sincerely and interpret it faithfully, going to plain experience for facts to inform our understandings, instead of invoking our own imaginations to utter oracles to us.

I have said enough to show that moral feeling, will, and consciousness of self are no less liable to suffer from the accidents of bodily structure than the mental functions of a

lower grade ; that the highest have no immunity or privilege over the lowest in that respect ; that when disease invades the physical substrata of mental organisation they are the first to attest its deranging effects. Nothing would be gained by going into fuller pathological details, for the difficulty is not to multiply instances, as might easily be done, but to get plain instances attended to and the lessons of them taken to heart.¹ The teachings of mental pathology are at one with the teachings of mental physiology, and indeed with some of the teachings of a rightly interpreted introspection, in pointing to the same plain conclusion—namely, that mind does not mean a new order of things in the sense of a new, entirely special and unrelated order of being, not subject to the laws which reign in nature, but inspired from God in the first instance and not anywise to be known afterwards except through the same inspiration ; that in the study of sound mental function we have to do with a natural evolution from the basis of all that has gone before in the order of existence, with that indeed which is the latest and highest outcome of the long travail of matter, and in the study of mental pathology with a dissolution or unbecoming ; and that the fruitful method to be pursued is the positive method of observation and induction, which has been successfully employed in the other sciences. That is the true way, and their gains are the solid steps, by which we can ascend and enter into the chamber of mind.

¹ I may refer here to a small volume entitled *Les Maladies de la Volonté*, by Monsieur Th. Ribot, the well-known editor of the *Revue Philosophique*. I regret that the book reached me after this work was in type.

SECTION VII.

WHAT WILL BE THE END THEREOF?

ARE we to look forward to a continued becoming or to an ultimate unbecoming of things? Will evolution on earth go on for ever? Or is not the end of life on earth foredoomed by as certain a fate as the end of individual life? Will not the same causes that have formed it, and are bringing it to perfection, even should they continue to operate, inevitably bring it to destruction? To us, who are alive, it may seem incredible that death can be the adequate end of such a long succession and such a vast complexity of life; but it is incredible only because we are alive and conceive things according to our own measure; it will be more credible to each of us when he is nearly dead, and not incredible at all when he is dead. Without doubt there will be further great gains of evolution yet in the long long while the world may last, but all the signs point plainly to the conclusion that its range on earth is limited, its end forefixed in its past, foretokened in the present, foredoomed in the future. It may be the time will come after many ages, as good men hoping believe, when mankind, dwelling together in peace and unity, shall not learn war any more, and righteousness shall reign upon earth, or when, as philosophic idealists dream, a higher race of beings sprung by evolutionary ascent from man and realising his loftiest ideals shall supplant him; but even if these visions of devout imagination become facts they will only be the steps of a progress that lead progress so much nearer to its grave. Nay, it may well be that man is destined to perish off the face of the earth before he has attained to the wisdom and goodness that he aspires to; that he is doomed, Moses-like, only to see from a distance, but never to enter, the promised land of his hopes. The universe makes no sign of feeling itself under the least obligation to make him realise his ideal, and the predominance of the ideal itself in the world must be deemed precarious so long as an evil power or anti-idealistic process

exists in it, since the latter may always hope to win in the end. Alongside a process of evolution there has always been in operation a process of degeneracy, and the simple question is whether this process will not eventually gain the upper hand, and then increasing in a geometrical ratio undo rapidly all that has been done slowly through the ages.

For what is the actual basis, the fundamental condition, of all the progress from simple to complex combinations of matter, from dead to living matter, from low to high organisms, from simple sensation and movement to moral feeling and will? If the answer be made that it is God that giveth the increase, the answer must be received in silence, provided only that is not the particular God of any particular people that is meant: not the God of India, nor of Egypt, nor of Greece, nor of Rome, nor of Abraham, nor of Mahomet, nor even the God, older than these Gods, that was worshipped by the ancestors of the whole Aryan race under the names of Light and Sky—*Dyâus-pitar* or Heaven-Father, who became afterwards the *Ζεὺς πατήρ*, or Jupiter. Without vainly attempting the impossible feat of going beyond our relations back to a First Cause which must necessarily be incomprehensible, and even so much as to name is to defame, we see plainly that the essential condition of all the successive becomings of things on earth (the *φύσις* of the Greek philosophers which, meaning literally a *becoming*, we translate and personify as Nature, and bid fair soon to personify as Evolution) is the light and heat of the sun. This is the force—represented of old as Father-Heaven generating upon Mother-Earth—which, acting upon matter through countless ages, has inspired it to go through its evolutionary changes: the sun, ‘of this great world both eye and soul,’ praised by herbs and trees and flowers in the joy of their vernal beauty, by birds in their thrilling melodies of song, by poets in their rhapsodies of love. Praise him, ye hosts of planets, poised in your orbits by him; praise him, ye mists and exhalations; praise him, ye winds, and wave your tops, ye pines; join voices, all ye living souls; ye birds, bear in your wings and in your notes his praise; ye that in waters glide, and ye that walk the earth, praise him.

Hail, universal Lord, be bounteous still
To give us only good ; and if the night
Have gathered aught of evil, or concealed,
Disperse it, as now light dispels the dark !¹

Such the language of adoration and praise which Milton represents our first parents as addressing to the Lord of light and life, the power which has infused their energies into all these things, whose might they continually declare and whose praises they continually show forth. When we consider that the sun is the immediate source of these energies, is it any wonder that Sun-worship was the religion of man at an early stage of his development? Nor can it be any wonder that when he came to perceive that the sun with its system of attendant planets, which at one time seemed the universe to him, was but a little thing in a galaxy of suns and stars, no more than an atom-cluster in an innumerable multitude of similar atom-clusters extending through unfathomable space, he rose to a wider and higher and more abstract conception of the Power in Heaven which fixed the stars in their places and holds the planets in their orbits, which appointed the sun to rule the day and the moon to rule the night on earth, and in which all things there live and move and have their being. But however high and far in its widening conception of the universe human thought may relegate God to the tenuity of the abstract, it remains certain that for us practically and for our earth the sun is all in all, and that when its light and heat expire all those energies on earth which it animates will expire also.

The common law of life is slow acquisition, equilibrium for a time, then a gentle decline that soon becomes a rapid decay, and finally death. It is a law which governs the growth, decline, and fall of nations as well as of individuals, for a nation, being a complex union of very complexly constituted individuals, cannot any more than they continue for ever in one stay. Nor can humanity as a whole escape the doom thus plainly decreed for it. If the force at the back of all becoming on earth is that which the sun has steadily

¹ *Paradise Lost*, Book V., pp. 180-200.

supplied to it through countless ages, and still steadily supplies, it is plain that when it fails, as fail it one day must, there will be a steadily declining development and a rapidly increasing degeneration of things, an undoing by regressive decompositions of what has been done by progressive combinations through the succession of the ages. The disintegrating process may be expected to take effect first in the highest products of evolution and to reach in deepening succession the low, lower, and lowest organisations and organic compounds. The nations that have risen high in complexity of development will degenerate and be broken up, to have their places taken by less complex associations of inferior individuals; they in turn will yield place to simpler and feebler unions of still more degraded beings; species after species of animals and plants will first degenerate and then become extinct, as the worsening conditions of life render it impossible for them to continue the struggle for existence; a few scattered families of degraded human beings living perhaps in snowhuts near the equator, very much as Esquimaux live now near the pole, will represent the last wave of the receding tide of human existence before its final extinction; until at last a frozen earth incapable of cultivation is left without energy to produce a living particle of any sort and so death itself is dead.¹

The inevitable end of all that is done under the sun when the sun itself is extinguished is a world undone—a world, that is, become inorganic in the reverse way of that by which it became organic. We have only to reflect how hard and mean, torpid and incomplete, human life is now in those frozen regions of the north where its bare continuance is precarious, and how paralysing are the effects upon human activity of an exceptionally severe winter in those temperate parts where it is usually in full vigour, to perceive that no great or prolonged cold will be needed to wither all the finer feelings and the loftier aspirations of mankind, and to

¹ All this, if the world perishes by the processes of what may be called natural decay. But there are equal chances, according to the astronomers, that it will come to a premature and violent end, the elements being melted with fervent heat owing to the fall of a comet into the sun.

bring to an end all the higher forms of its energy. Nor is it without interest to note how ancient and widespread has been the notion that the world would relapse into chaos again. Lucretius was content to believe it on grounds of reason without desiring to witness it—

Quod procul a nobis flectat fortuna gubernans :
Et ratio potius quam res persuadent ipsa.

Once the dissolution of things has got full start and way, it will be vastly quicker than the evolution has been; for the degenerate products of social disintegration will not fail, like morbid elements in the physiological organism or like the poisonous products of its own putrefaction, to act as powerful disintegrants, and to hasten by their anti-social energies the downward course. Not that humanity will retrograde quickly through the exact stages of its former slow and tedious progress, as every child now goes quickly forwards through them: it will not in fact reproduce savages with the simple mental qualities of children, but new and degenerate varieties with special repulsive characters—savages of a decomposing civilisation, as we might call them—who will be ten times more vicious and noxious, and infinitely less capable of improvement, than the savages of a primitive barbarism; social disintegrants of the worst kind, because bred of the corruption of the best organic developments, with natures and properties virulently anti-social. We may note now that degenerate nations which have fallen far from their once high estate do not recover it, and that they are really more difficult to lift into the path of progress than barbarous nations that have never known a higher state: they have exhausted the self-conservative impulse of evolution and are a fit soil to breed and nurse the retrograde products of disintegration. In the progressive communities of to-day we have only to do with such products as occasional intruders—sporadic occurrences that are foreign to the social constitution, which, inspired with strong vital energy, is able to thwart and to eliminate them; but when it has entered upon the path of its decline they will predominate and meet with no counteracting resistance in the healthy vigour of a

growing social organism. So then we may read the lesson thus: as the products of organic decomposition are fatal to the organism, if not eliminated or counteracted, and the most virulent and fatal those that are derived from the corruption of its own substance, so the products of social disintegration will be fatal to social integration, when they are not eliminated or counteracted, and the most virulent disintegrants of a nation or society those that are the products of its own social corruption.

If we are minded to guess what will be the effect of the waning of the evolutional or generative force in nature upon the feelings and aspirations and energies of mankind, consider the effects that follow the waning of it in the individual. Contrast the different mental characters of puberty, of manhood, of old age: the overflowing energy of the first, its raptures of love, its generous enthusiasms and fervent hopes, its expansive friendships, its bright and lofty ideals, its ambitions to do great things, its eager desire of fame—all attesting an exuberance of evolutional energy; next the more sober ideals of ripe manhood, when the vital energy has attained and maintains an equilibrium with its environment—activity of more measured kind, sedater judgment, a great cooling of enthusiasms and inflamed hopes, calculated amities, colder and clearer reason, and therewith a considerable disillusioning whereby the estimate of the value of immediate fame sinks much and gives place rather to the ambition of a larger and more lasting fame in the mouths of a wiser posterity; lastly, the mental effects of age, as it quenches gradually the aggressive energies of life, disturbing the equilibrium in favour of the environment, and leaves the self-conserving energies more than they can do to hold their own. Among these effects are the extinction of the ideal in a contracted egoism; an almost entire absorption in the present and its pursuits, or at any rate a very small regard to the future, especially to that great future which is so near at hand; a life in sensations and habits; obtuse or cynical indifference to the opinion of cotemporaries or of posterity, if the natural vanity of a vain character has not grown to excess in the

decaying soil of senility; oftentimes an intensely persistent grasp of what was possessed and an obstinate desire to be what he has been, attesting the self-conservative struggle of failing vitality to hold that which threatens to slip from it; decay of all enthusiasms and of the finer moral sensibilities; incapacity to feel real sympathy with the joys and sorrows of others, or indeed to feel deeply any sorrow; overmuch deliberation in endless repetitions without executive energy to resolve and to accomplish; no expansive desire or hope to propagate an esteemed name amongst living kind or through the ages, the desire, if any, being a joyless habit, like the possibly still feebly surviving reproductive function. It is a pregnant lesson and a grim forewarning: a lesson that the extinction of the reproductive energy of the individual is the extinction not of his desire only to propagate his bodily kind, but of his desire to propagate himself mentally through the ages; a forewarning that what is taking place day by day in individual life will one last long day take place in the life of the race. Is it any wonder then that the generative force in nature, under one guise or another, has been the object of worship in so many religions, when worship is itself an outcome and incident of it?

What an awful contemplation, that of the human race bereft of its evolutionary energy, disillusioned, without enthusiasm, without hope, without aspiration, without an ideal! To it now such an issue may well appear incredible, since youth and energy cannot believe sincerely, can only think it believes, in decay and death. Perhaps it will be declared repugnant to reason to suppose that mankind could cherish ideals, and thus far ever rising ideals, were these not destined some time to have full realisation somewhere; and much more so to believe that, having reached its zenith, these will give place to ever worsening ideals of ever worsening states of things, as the foregoing theory of human extinction assumes will happen. But the instinctive repugnance ought not to count as a fact of much weight: in the first place, it is no argument against death that life in full energy has a repugnance to it and cannot realise it; in the second place, the extinction of evolutionary energy that must follow

the gradual extinction of solar energy will involve in its consequences the extinction of the upward-tending ideal, and mankind will go on contentedly with a downward-tending ideal, or anti-ideal, without feeling it to be such, just as declining nations do now, any forlorn Cassandra that may raise a warning cry meeting her eternal fate of being unheeded; and in the third place, if there be an intuitive truth in the hope and conviction of a future realisation of lofty ideals, it does not follow that the realisation will take place on earth. It is perchance a cosmic instinct of the matter of which we are constituted. In the countless millions of space-pervading orbs it may have been and may be again the functions of many to take up the tale of organic evolution and to carry the process to higher and higher levels, even to organisations that are utterly inconceivable to us, constituted as we are. For us men and for our salvation the earth and its sun are all in all, but in the universe and its evolution new heavens and new earths may be natural incidents, and the whole solar system to which the earth belongs of no greater moment than the life of the meanest insect is in the history of that system, of no greater proportion than a moment in its duration. How grotesquely ludicrous then the absurdity of man's vainly attempted conceptions of a great final cause or purpose of things! In order to conceive a cosmic final cause it would be necessary for the individual to achieve the abolition of time, which is the mere condition of human thought, and to acquire the power of thinking beyond himself, which would be the abolition of himself. Let an insect, born in the morning and dying of old age in the following midnight, be supposed to think as we think, it might well believe it impossible that the glorious pageant of the rising sun, with the accompanying awakening of animal and vegetable life, its waxing brightness into the full splendour of noontide, and its gradual waning through evening twilight into darkness, could be the worthy end and purpose of such great events. Although it would be the absolute end for it, and could not by it be thought otherwise, it would not be the end, since after the darkness another day would dawn and countless other days after that, as countless days had dawned before.

So may it well be with the universe as revealed through human relations. Before our world was an innumerable multitude of worlds were, and after it has been an innumerable multitude of worlds will be. Even though righteousness never reign on earth, and the belief of that blessed consummation be an illusion with which man dupes himself into faith and self-sacrifice, righteousness may still have reigned, may even now reign, and may reign hereafter in the universe. Those who believe in the fall of man from a high state of happiness and perfection which he once enjoyed on earth, the dim memory of which remains in him as an ideal to aspire to and to regain, so accounting to themselves for the otherwise inexplicable existence of the ideal in him, ought to transfer the scene and date of Paradise to another planet of another solar system countless ages ago. Let them then discover in the matter of this earth a kind of dimly instinctive intimation or memory of its experiences from all eternity, and amongst them of the experience that it once had of that better life in the defunct planet or planets of which it formed part.

If the evolutionary *visus* in nature, and in man as a part of it, inspires idealism, its failure must be the avatar of pessimism. The highest becoming of things, the highest expression of which is in the best human feeling, imagination and will, then will come to an end, and in its stead will prevail a lower becoming of things, first manifest in the highest human feeling, imagination and will. No throb more will be felt of that mysterious inspiration which has been thought supernatural, and which, whatever its source, has created ideals and inflamed aspirations, has infused a sacred and authoritative sanction into morality, and has taken form in so many inadequate human representations; and in place of these dethroned divinities there will be no aspiration, no holy sense of duty, no belief, only dreary apathy or torpid resignation. Pessimism declaring the extinction of illusions will then actually, as sometimes now theoretically, make for itself an ideal of despair and be content with its gloomy conceit. Be that so or not, however, it may justly be doubted whether it is anything more than illusive imagination that

foresees, as crown of organic evolution, a race of placid beings bound together in unity of spirit, making the whole earth busy with their peaceful industries, persuaded rationally of the folly of war, and living lives of good-will and good works to one another; whether in fact such a consummation would not mean the emasculation, physical, moral, and intellectual, of the race.

Is it so certain as it is assumed to be, that a higher moral evolution, should it take place, will tend necessarily to the greater happiness of mankind? More refined and delicate sentiments may render an individual too sensitive morally, and therefore painfully vulnerable in a world the march of which is marked by no little brutal force. He may become hyper-sensitive morally as well as physically. A certain rude and blunt vigour of fibre is a necessary endowment of the man who is framed in mind and body to succeed well in practical life. The survival of the fittest is not commonly the survival of the finest nature. It would be plain ruin for any one to attempt to realise a lofty ideal in his daily business where he is brought into competition with others who act on a system of reticence, dissimulation, and overreaching. Do not crushed sensibilities, disillusionment and despair cause many more suicides than cancer and other painful and hopeless diseases? Certainly it is not idiots and animals that commit suicide. In order that morality may succeed in the world it will be necessary for the immoral to make a beginning.

If a disillusioned and degenerative end of mankind on earth has been forefixed from the beginning, it would seem that we ought to observe here and there, and from time to time in its history, forewarning indications of that consummation, more especially now when it has plainly reached a high stage of self-reflection. May it not be that we are in daily presence of such foretokens without thinking enough of their meaning? Are there not faintly heard from time to time, afar off, the solemn tolls of destiny which, though hearing them, we understand not? Metaphysical disquisitions concerning the reality of an external world; scepticism as to the very foundations of knowledge, and doubts whether all that we see and

seem is not pure illusion—a dream within a dream ; elaborate introspective self-analyses ; thin and shrieking sentimentalities ; emasculated sensualities in art masquerading as art for art's sake ; the increase of sorrow that increase of knowledge is ; the conviction of the utter vanities of all things under the sun, which has been the experience of the greatest sages and is the central truth at the heart of all religions ; the multiplication of suicides from life-weariness or from impotence to face life's struggles :—all these and the like maladies of self-consciousness, notably absent in the animal and uncivilised man, where generative energy is in full vigour and has not become self-conscious, what are they but proofs that the highest achievements of thought sever the unity of man and nature and bring doubt and disillusion ? It is not man who, as a being separate from nature, prophesies thus of it, but nature that testifies of itself in him. They are its forewarning intimations of inevitable decline and death ; the proof that nature itself is reaching a stage of development at which disillusioning begins.

The organised system of belief in the ideal and of the pretence of belief that it is being realised will no doubt continue for a time after genuine belief has expired. But not for ever ; when there is no longer the aspiration to realise the ideal, the inclination to idealise the real will fail also. The elaborately organised pretences of virtue through the systematic concealments of vice will not be kept up, and life will be viewed in its bare misery and vanity. Men will feel the wish in life, as they now give thanks at death, to be delivered from the burden of the flesh and from the miseries of this sinful world. Those are the fervent thanks that they solemnly give to Almighty God when death has removed one of them from a life which at the same time they eagerly pretend to consider a blessing. Solomon, the wisest and wealthiest man that ever lived, who exhausted the potentialities of enjoyment, and Job, the most afflicted and most patient of men, who exhausted the potentialities of suffering, came to much the same conclusion with regard to the vexation, vanity, and littleness of human life. To the same conclusion, explicit or implicit, must the human race come

too in the end. And a sad and sadly significant thing it will be when the entertainment and adoration of the ideal are extinguished in the mind.

To point out in a clear exposition that each of the tokens I have mentioned has the meaning which I have ascribed to it would carry me far beyond the proper scope of this essay. From among other instances of distempered self-consciousness that might be meditated upon, consider for a moment the frequent degeneration of sound sentiment into shrieking sentimentality. Instead of deep, calm, restrained, and massive feeling, fusing intelligence and activity into whole and wholesome unity, than which nothing can be more excellent and beautiful, there is everywhere the shrill outcry of thin sentimentalities, which are the outcome of exaggerated egoisms—a true egoistic hyperæsthesia—and actually disintegrant in their effects. Do you require a particular instance of repulsive sentimentalisms that are no better than a shameless and indecent exposure of feelings? Take one which the awe of its subject cannot help lending a certain dignity to—the howling displays of self-consciousness that are shown nowadays with respect to the event and the circumstances of death, notwithstanding that to die is as natural and common as to be born. Nobody of the least note dies but we are told with clamour of grief and convulsive sobs which might be thought to express the deepest distress—though they really are the luxury of incontinent feeling—that the most amiable, the most accomplished, the most witty, the most wise, the best of men has been taken from us, and that the loss is an irreparable calamity to mankind. And this though he may have been eighty years old and almost in his dotage! As if anybody ever dies of whom it can be truly said that it is of the least consequence to mankind in the long run when he dies; or as if his resurrection a few months after his death would not be a most embarrassing and unwelcome event. Contrast this modern incontinence of emotion with the calm, chaste, and manly simplicity of Homer, as we observe it, for example, in his description of the death of Achilles:—

The grey dawn glimmered, and the ebbing tide
Slipped from the naked sands about the ships,
And drained Scamander of its full-fed life.
But in the Grecian Camp was life and stir,
Neighing of full-fed steeds, and clank of arms,
And trumpet-calls and marshalling of men ;
For that this day the Master of the War,
Pelides' self, should take the field, and sweep
The Trojan battle from the plains of Troy.
So men, unknowing, spake ; and from his tents,
With godlike step and godlike in his face,
Achilles came. And all about his limbs
The wondrous armour which the Fire-God wrought,
Helmet and cuirass, cuisses, and the shield
Sevenfold, and shapely greaves, that shot their light
Down on the naked marble of his feet.
His look was as of one who knew not care,
Nor memory of the past, nor things to come ;
Not the dead comrade, nor the fell revenge,
Nor shame of slaughtered warriors at the pyre,
Nor lust of ravished maid, nor sullen strife,
Nor the short span, and swiftly-severed thread,—
But only present triumph.

To the front

He strode ; and shading with an upraised hand
His level glance, gazed at the Trojan lines,
Which, thrice as far as bowmen shoot the bow,
Were clustering, thick as ants in harvest-time
Cluster around their harried nest, and brave
With weak defence the ruin that impends.
But one was in their van, who seemed in shape,
In grace, and nimbleness, and fatal gift
Of beauty, like the shepherd-prince who lured
The love of Spartan Helen from her lord.
No man was near him, none seemed 'ware of him ;
Alone he stood, unhelmed, and round his head
The rising sun, smiting the rising mist,
Broke in a sudden glory ; and behind,
High up, the towers of angry Pallas frowned.
No armour had he, save that in his hand
A golden bow was bended to the full ;
And as Achilles turned, with curving lip,
Contemptuous, to his men, an arrow sang,

And cleft the middle air, and dipped, and plunged
Full on the naked marble of his foot.
Through high-arched instep, ankle, and the strings
That bind the straining heel, it sped, and nailed
The wolf-skin sandal to the crimson sand.
Slow on one knee he sank, his strong, right hand
Staying his fall, and watched with steady eye
The full life draining from the wound, and spake,—
'Mother, thy word was true. The end is come.'
Nor ever spake again.

Consider again the fact of suicide, which is a sort of convulsive climax of pessimism. From a purely psychological point of view it must be acknowledged the most momentous example of freewill on human record. Convinced of a life after death, and of a life that will be a life of unspeakable joy or of unspeakable woe according to the deeds done in the flesh, assured that suicide will precipitate him into an abyss of endless suffering, the unhappy person nevertheless recklessly perpetrates it when his misery on earth is greater than that which he believes he is able to bear. Against it there is every motive that can influence a conscious being, so that the act is, *quâ* consciousness, the most wonderfully illogical act of which any one can be guilty: either a stupendous example of freewill or a *reductio ad absurdum* of the doctrine. Manifestly there is a deeper and more powerful motive at work than any conscious motives; for certainly that which happens in nature cannot be illogical in the logic of nature; and without doubt it would be perceived by consciousness to be logical enough could consciousness only survive to justify it. An instinct deeper and truer than any conscious belief declares the certainty of relief. The motive is irresistibly impellent, because it is the total outcome in consciousness of the failure of vital energies and of the therefrom resulting sufferings of the individual elements of the tissues. When these energies have been exhausted gradually by the decay of age, the individual hopes and quietly waits for the release of death; when they are deficient naturally, or are prematurely exhausted either by sudden and overwhelming prostration or slowly by steadily sapping causes, physical

or moral, he precipitates violently the release that they crave. For the conscious result is an utter dreariness of feeling, a loss of interest in and hold on external events, a repugnance to the vanity of hope, a supreme life-weariness. Those who have made mental pathology a study know well that there is no more powerful cause of individual suicide than the premature loss of the evolutionary energy, mental and bodily. If suicide be not the upshot, there is perhaps an abandonment to the use of alcohol or opium which, stimulating the flagging energies, creates a temporary ideal, or to chloral or similarly acting drugs that produce a temporary insensibility: a false refuge, since they inevitably make matters worse in the end. 'Tis a way of making Hell by a mad attempt to find Heaven.

Obviously this is not the best of all possible worlds, since men have conceived a better in the shape of a Paradise that has been and is to come; nor is it the worst of all possible worlds, since they have conceived a worse in the shape of a Hell. Meanwhile it is sure to get either better or worse. Whether it will get better, and, if so, for how long, or whether it will get worse, and, if so, how soon, are questions that it is signal presumption on our part to imagine we can answer. That it will get better for a long time to come, but worse in the end, is a theory that seems to suit well with the explicit truths of human thought and with the implicit truths of human conduct; for mankind is as optimistic in theory as it is pessimistic in practice. Visions of golden ages, of extinctions of wars and other calamities, of reigns of righteousness and universal brotherhood, and the like, are evolved as excellent ideals to inspire and guide the units in their struggles; but the acts of practical life are none the less imbued with the implicit certitude that the respective sums of vice and virtue will not change, and that the race will be very much what it has been until its doom is accomplished. What, then, shall we say? That it is well to proclaim and extol the ideal, as M. Renan does, reserving only the right to laugh quietly in his sleeve?

It is almost literally true of social evolution that we know not what a day may bring forth. Even if civilisation progresses in the direction of softening characters and abo-

lishing wars, it does not follow that the result will be a certain good; for it may be to dry up the sources of the virtues and to enervate mankind morally. Again, if the prevalence of ease, luxury, and self-indulgence be so great in a nation as to threaten its speedy decadence, an unforeseen reaction may occur suddenly and issue in the revival of austerity and asceticism, and so pessimism give place to idealism; for the reformer is the proper product of evil times. We cannot predict that in time to come some new development of feeling may not take place which shall be as high above moral feeling as moral feeling is high above the most primitive egoistic passion, and of a nature as inconceivable to us as moral feeling would have been to a primitive savage. Nor can we predict that a great invention may not be made any day, which shall change the whole face of the earth and modify profoundly men's relations to it and to one another. Suppose that man had lived at a time when the simple elements had not yet formed their more complex organic compounds, could he have foretold in the least from the basis of the then existing organic substances what higher compounds were to be formed in the future, although they were on the brink of formation? Assuredly not; and yet in that case he would have had to do with simple elements and comparatively simple operations of nature, whereas in the social evolution of the race we have to do with the most complex elements and the most complex operations in the world. How idle and presumptuous, then, the pretence to forecast it! What account would a Roman philosopher of the time of Augustus, venturing to divine the future of Europe, have taken of the babe that 'all meanly wrapt in a rude manger lay' in a small town of a remote province of the empire; and what sort of a business would he have made of his predictions? The philosopher of to-day who can tell us what happened when the foundations of the earth were laid and the morning stars sang together will no doubt be ready to tell us exactly what will happen when the foundations of the earth are unlaied and the morning stars shall cease to sing together; those who have not his confident

insight into creations and uncreations will be content to hold their peace, lest they should speak without knowledge words that are without wisdom. But be the words spoken the words of folly or of wisdom, they are in the end alike vanity. 'All that which is past is as a Dream; and he that hopes or depends upon Time coming, dreams waking.'

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